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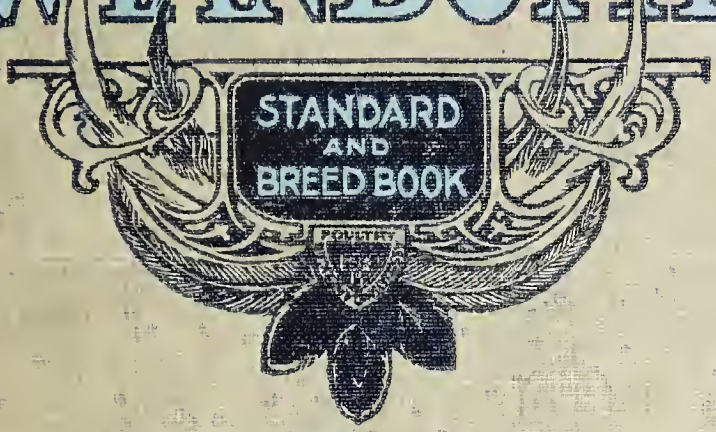

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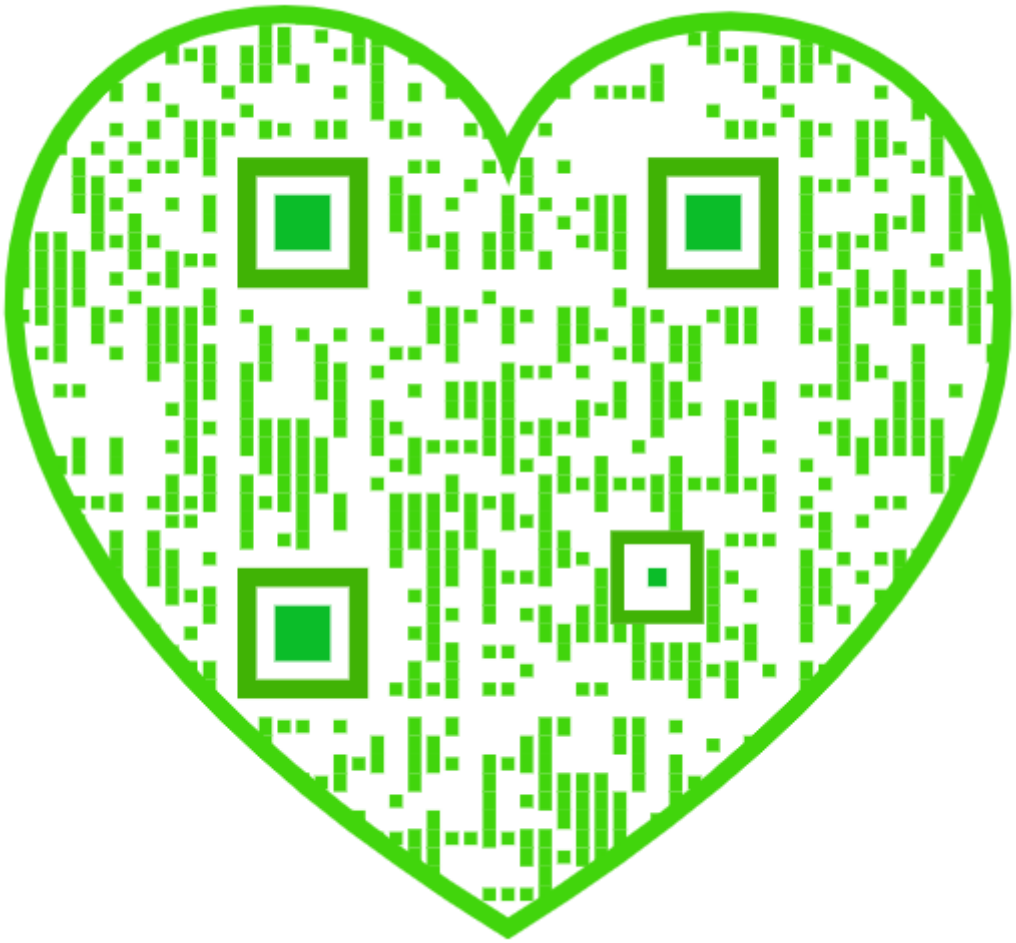

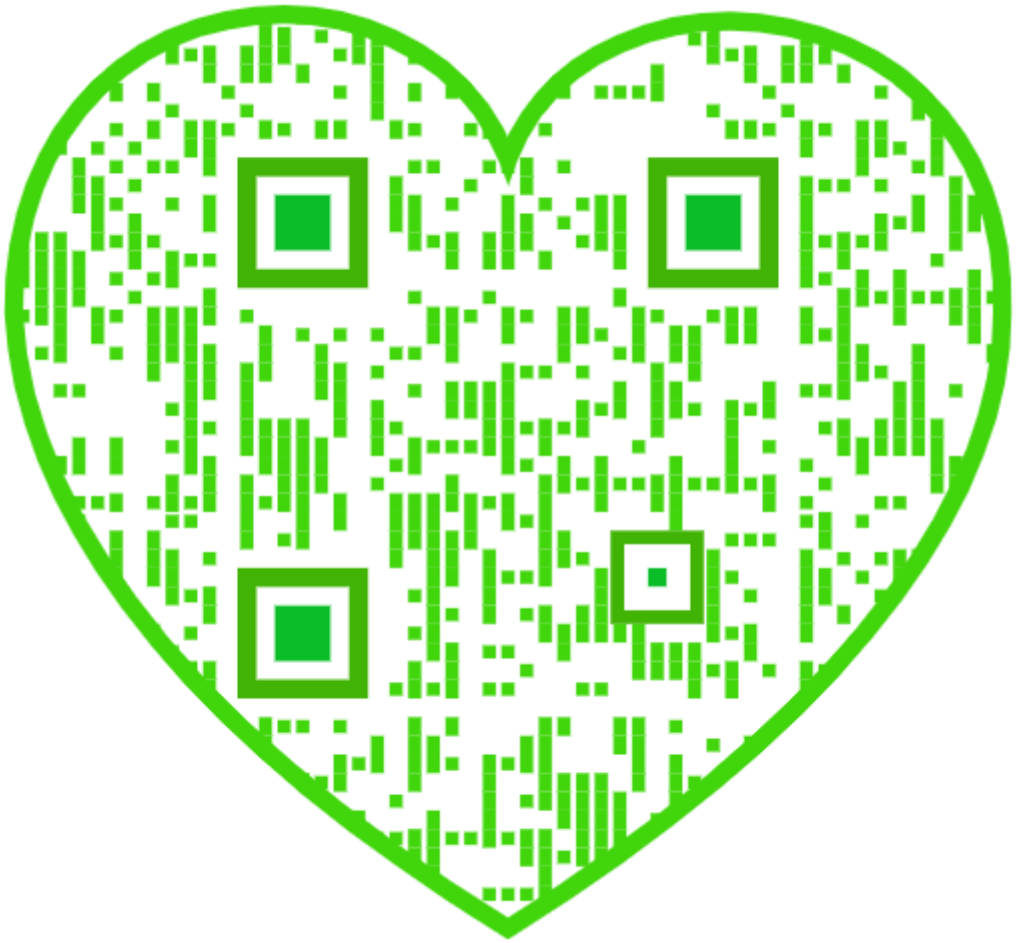

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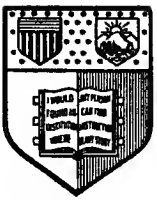

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THE WYANDOTTE STANDARD AND BREED BOOK

A COMPLETE DESCRIPTION OF
ALL VARIETIES OF WYANDOTTES, WITH THE TEXT
IN FULL FROM THE LATEST (1915) REVISED EDITION
OF THE AMERICAN STANDARD OF PERFECTION
AS IT RELATES TO ALL VARIETIES OF
WYANDOTTES.

ALSO, WITH TREATISES ON BREEDING, REARING, FEEDING, HOUSING, CONDITIONING FOR EXHIBITIONS, EXHIBITING—ETC.

BY ACCREDITED AUTHORS
SEE LIST OF AUTHORS, PAGE NINE.

EDITED BY H. A. NOURSE.

ILLUSTRATIONS
BY ARTHUR O. SCHILLING.

PRINTED AND PUBLISHED BY
THE AMERICAN POULTRY ASSOCIATION.

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INTRODUCTION.

TO THE 1915 REVISED EDITION OF THE AMERICAN STANDARD OF PERFECTION.

THE organization of the American Poultry Association was effected at Buffalo, New York, February, 1873, by delegates from different state and county associations, prominent breeders, fanciers, and other interested persons from different sections of the United States and Canada. Mr. W. H. Churchman of Wilmington, Delaware, was the first president and Mr. J. M. Wade of Philadelphia, the first secretary.

At that time the fundamental object of this organization was to standardize the different varieties of domestic and ornamental fowls, and to that end, a complete Standard of Excellence for all varieties then recognized, was formulated and adopted which was recommended as the guide for judging at all poultry exhibitions. The American Poultry Association has since broadened its scope. Its annual conventions have visited nearly all of our large industrial centers.

The first edition of the Standard was issued in February, 1874. It has been followed by several revised editions, but the work of the first Standard makers was so thorough, accurate and far-seeing that but few changes, and these of minor importance, have been necessary. Many new breeds and varieties, nearly all of later origin, have been admitted. After a few editions, the title "Standard of Excellence" was changed to read "Standard of Perfection" as one, theoretically at least, more in accord with its prescribed ideals.

Until 1905, all editions contained text descriptions only, and no attempt was made to delineate ideal fowls. The 1905 edition contains this innovation. The illustrations were line drawings by the best known poultry artists of that time. These were received with approval, in sufficient measure so that the plan of presenting outline illustrations of many of the leading varieties were continued. The type of illustrations

was, however, changed to half-tone illustrations of retouched and idealized photographs of living specimens. These appeared in the 1910 edition after having been approved by the Thirty-fifth Annual Convention.

It has been the general policy of the American Poultry Association to revise the Standard of Perfection every five years, this work being most carefully done by Revision Committees chosen to represent as far as possible the interests of all sections of the country and of the different breed classifications.

The last Revision Committee was appointed at the Thirty-sixth Annual Meeting at Denver, Colorado, 1911, and the present or 1915 edition of the Standard of Perfection includes the changes and additions made by this Committee with such further changes or amendments as were voted by the Association at its Thirty-eighth and Thirty-ninth Annual Meetings in 1913 and 1914.

The 1915 Standard is the basis for the present work, "The Wyandotte Standard and Breed Book," every detail applying to this breed in the main Standard being reproduced verbatim in this work.

PREFACE.

TO THE WYANDOTTE STANDARD AND BREED BOOK.

FOR a number of years there has been a growing demand among poultry breeders for the publication by the American Poultry Association of what are popularly known as Separate Breed Standards—a series of books each one containing the official Standard description of a single breed, and in addition, reliable and authoritative information in regard to the actual breeding of such fowls.

This work the Association undertook and published the Plymouth Rock Standard and Breed Book, the first of the series, which was promptly followed by this, the Wyandotte Standard and Breed Book, the second in the series.

The first step taken by the American Poultry Association toward the construction and publication of Breed Books, referred to at that time and even yet, as Breed Standards, was the adoption at the Thirty-second Annual Meeting, Buffalo, August 15, 1910, of a resolution presented by Grant M. Curtis.

The presentation and adoption of this resolution was the outcome of a demand more or less general on the part of the breeders for separate "Breed Standards," each of which would describe completely one breed only, in addition to the complete work, the "American Standard of Perfection," which gives a description of best shape and color type of all breeds and varieties recognized by the American Poultry Association, as well as illustrations of both the ideal male and female of any of the leading varieties; also, rules by which all breeds and varieties are judged at the poultry exhibitions of the United States and Canada, and graphic illustrations of the ideal comb, feather markings and the most common defects of standard fowls in shape, color, and markings.

By the terms of the resolution, the scope of the work was much more comprehensive than the breeders in general had

expected, and yet, by subsequent action of the Association, the scope of this work was to be still greatly enlarged. In another section will be noticed the method of ascertaining by eminently fair means the relative popularity in the United States and Canada of the different Standard breeds of poultry.

The report of the Secretary-Treasurer at the Thirty-third Annual Meeting of the Association in August of 1908, showed that, according to the certified reports of the Secretaries of Poultry Associations, holding shows between October 31st, 1907, and March 1st, 1908, in the United States and Canada, the Plymouth Rocks led all other breeds in number of birds exhibited.

At the Thirty-sixth Annual Meeting at Denver, August 6-9, 1911, a resolution was passed, providing for a Plymouth Rock Breed Standard, as the first in the series, and creating a committee to edit and publish the same.

The Committee appointed, consisting of D. M. Green, S. A. Noftzger, W. C. Denney, U. R. Fishel and A. C. Smith as Chairman, representing, as actual breeders, five of the six Plymouth Rock varieties. As yet, the scope of the work had not extended beyond that outlined earlier in this article, the idea being to give besides the descriptions, illustrations, definitions, graphic sketches, instructions to judges, etc., as found in the Standard of Perfection, a more complete history of each variety, a more complete and clearer description of the shape and plumage, the common defects of each, and colored illustrations of the best natural feathers that could be secured.

The committee as above named, presented a report with complete manuscript but with no new illustrations to the Thirty-seventh Annual Convention at Nashville, Tennessee, 1912, but because the time to elapse before the next revision was held to be too short to warrant the expense of a work of this kind, the Association voted to withhold publication until after the next (1915) general revision of the Standard of Perfection.

At the Thirty-eighth Annual Meeting at Atlantic City, August, 1913, this committee sat in conference with the leading breeders of Plymouth Rock varieties and others interested and as the result of these conferences, the committee made a report which outlined a breed standard embodying several new features, such as articles on single and double matings, articles especially adapted to the needs of beginners on mating the different varieties, illustrations showing the

relative proportions of the different sections, and the various markings found in the plumage of the different varieties.

The Thirty-eighth and Thirty-ninth Annual Meetings merely ratified the action of the Thirty-seventh in expressing a determination to publish Breed Standards after the publication of the 1915 Revision of the Standard of Perfection, which was not effected until the Fortieth Annual Meeting at San Francisco, November, 1915.

By the action of the Association at this meeting, the Breed Standards were put into the hands of the Standing Standard Committee, and by the terms of the same resolution, this committee was empowered to employ artists, clerks, editors, etc., to proceed with the work, the expense of which was to be met by an appropriation by the Association of $2,000.

A Breed Standard Committee was appointed at the San Francisco meeting, consisting of

Grant M. Curtis
E. E. Richards
Arthur C. Smith
W. S. Russell
W. R. Graham

This Committee held a meeting at San Francisco immediately after the adjournment of the Convention and another was held later at Buffalo, New York.

This meeting, in April, 1916, was attended by Messrs. Curtis and Smith for the committee, the late Secretary Campbell representing Pres. Richards, Artists Sewell and Schilling, and a few members of the Association who were called for consultation. At this meeting the text and illustrations for the breed Standards were outlined in detail and a complete table of contents adopted, work upon which immediately began. Many of these illustrations were exhibited at the Forty-first Annual Meeting at Cleveland, Ohio. The meeting received the report of the committee and an appropriation to complete this work and publish 3,000 copies of the Plymouth Rock Standard and Breed Book and 3,000 copies of the Wyandotte Standard and Breed Book (which had been selected as the second of the series by the same method that determined the Plymouth Rock as the first) was voted by the Association.

Later, the personnel of this committee was somewhat changed by the resignations of Messrs. Curtis and Graham and the appointments of Messrs. H. A. Nourse and T. F. McGrew.

INTRODUCTION.

THAT the reader may get a correct understanding of the scope and purposes of both the American Standard of Perfection and the separate Breed Standards, a few explanatory statements will be made at this point. First, the separate Breed Standards are designed to supplement the Standard of Perfection and not to supplant it. Again, the Standard of Perfection is a fully illustrated, well printed, and neatly bound volume of 368 pages, that gives a complete though necessarily somewhat concise description of all breeds and varieties recognized by the American Poultry Association as Standard-bred poultry, as well as illustrations of both the ideal male and female of most of the leading varieties; also, rules by which all breeds and varieties are judged at the poultry exhibitions of the United States and Canada, and graphic illustrations of ideal combs, feather markings, and the most serious defects of standard-bred fowls in shape, color, and markings. It is the poultry breeder's official guide, and is almost indispensable to all who are directly interested in the breeding of what is commonly known as "pure-bred fowls."

For the separate Breed Standard, it has been argued that the average breeder who keeps only a single breed or variety is not as much interested in the description of the many other breeds found in this Standard. In practical application, he wants and greatly needs more than this, that is, reliable, practical instruction in how to mate and care for fowls of the particular breeds in which he is interested, in order that he may be able to produce as large a proportion as possible of specimens that shall approach closely to the ideals described and presented in the Standard of Perfection.

The present volume, as the second of the Separate Breed Standards, represents a conscientious effort on the part of the committee to render this service to the breeders of Wyandottes. This book contains everything that appears in the Standard of Perfection that relates directly to Wyandottes. In addition it gives full detailed information on the breeding, exhibiting, rearing and marketing of such fowls.

Obviously, it is impossible for this committee to formulate definite rules, the application of which may be expected to bring about the production of the highest exhibition qualities in Wyandottes in every instance. The time may probably never come when hard and fast rules for all phases of breeding problems can be well laid down, but there is a vast difference between an attempt to achieve this seemingly impossible accomplishment and the policy of complete silence on the many problems that confront the breeder, especially the beginner, who, heretofore, has had no authentic source of information on the practical problems involved in the breeding of Standard fowls.

And we believe that most breeders, certainly most of those who are inexperienced, will welcome reliable information designed to solve the many difficult problems associated with this task; will appreciate having in complete and connected form a plain statement of the fundamental principles involved in this work, and will welcome reliable guidance in working out the details of the special problems that confront them. (H. T. J.)

LIST OF AUTHORS.

The Association is indebted to Messrs. Homer W. Jackson for several articles in Part I, to J. H. Drevenstedt and F. L. Platt for the articles on Origin, Development, Breeding, etc., of Wyandottes, to A. C. Smith for Part II and articles on Exhibiting, etc., to M. L. Chapman for the article on Conditioning White Birds, to H. A. Nourse for the treatise on Practical Poultry Keeping, and to John S. Martin and C. T. Patterson for articles on Utility Features of Wyandottes. Their initials are appended to the articles written.

THE WYANDOTTE STANDARD AND BREED BOOK.

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PART ONE: Fundamentals of the Wyandotte Fowl.

PART TWO: Successive Stages of Development in Domestic Fowls.

PART THREE: Standard-Bred Wyandottes.

PART FOUR: Wyandottes For and In the Show Room.

PART FIVE: Practical Poultry Keeping.

PART SIX: Utility Features of the Wyandotte Fowl.

PART ONE.

FUNDAMENTALS OF THE WYANDOTTE FOWL.

SECTION I.

Nomenclature and Glossary of Technical Terms.

CHAPTER I. Glossary of Technical Terms.

SECTION II.

The Score Card and Instructions for Judging.

CHAPTER I. Instructions for Judging Wyandottes.

CHAPTER II. General Disqualifications for Wyandottes.

CHAPTER III. Rules for Cutting for Defects of Wyandottes.

SECTION III.

An Explanation of Standard Measurements and Color Terms.

CHAPTER I. Standard Measurements.

CHAPTER II. Color Terms.

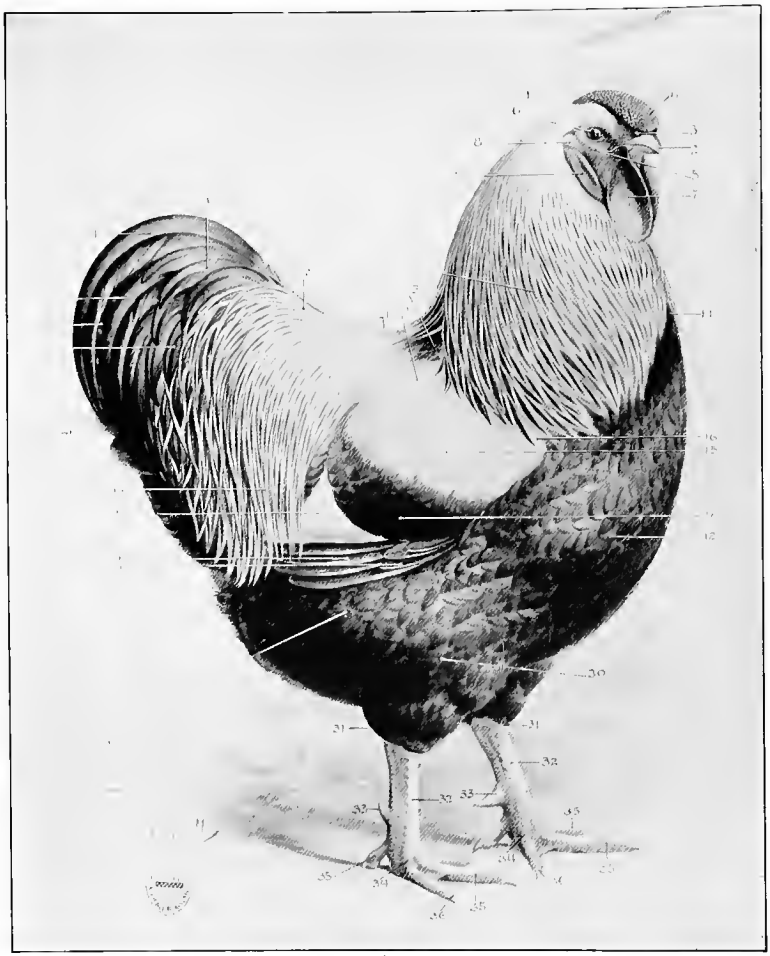


Figure 1.

NOMENCLATURE

DIAGRAM OF MALE.

1 Head.
2 Beak.
3 Nostril.
4 Comb.
5 Face.
6 Eye.
7 Wattle.
8 Ear.
9 Ear-Lobe.
10 Hackle.
11 Front of Hackle.
12 Breast.
13 Cape.
14 Shoulder.
15 Wing-bow.
16 Wing-front.
17 Wing-coverts, Wing-bar.
18 Secondaries, Wing-bay.
19 Primaries, Flights.
20 Primary-coverts.
21 Back.
22 Saddle.
23 Saddle Feathers.
24 Sickles.
25 Smaller Sickles.
26 Tail-coverts.
27-27 Main Tail Feathers.
28 Body Feathers.
29 Fluff.
30 Thighs.
31-31 Hocks.
32-32 Shanks.
33-33 Spurs.
34-34 Feet.
35-35-35 Toes.
36-36 Toe Nails.

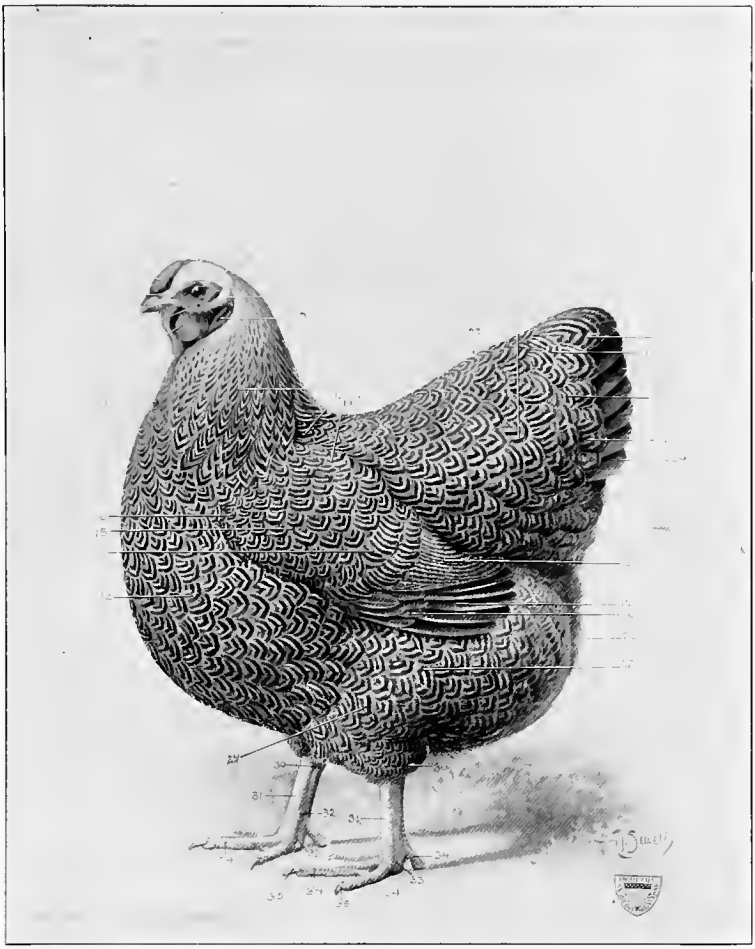


Figure 2.

NOMENCLATURE

DIAGRAM OF FEMALE

1 Head.
2 Beak.
3 Nostril.
4 Comb.
5 Face.
6 Eye.
7 Wattle.
8 Ear.
9 Ear-Lobe.
10 Neck.
11 Front of Neck.
12 Breast.
13 Cape.
14 Shoulder.
15 Wing-bow.
16 Wing-front.
17 Wing-coverts.
18 Secondaries, Wing-bay.
19 Primaries, Flights.
20 Primary-coverts.
21 Back.
22 Sweep of Back.
23 Cushion.
24-24 Main Tail Feathers.
25-25 Tail-coverts.
26-26 Tail-coverts.
27 Body Feathers.
28 Fluff.
29 Thighs.
30-30 Hocks.
31-31 Shanks.
32 Spur.
33-33 Feet.
34-34-34 Toes.
35-35 Toe Nails.

SECTION I.

CHAPTER I.

GLOSSARY OF TECHNICAL TERMS.

Bay.—A rich brown-red; red with a brown tinge, similar to reddish chestnut. (Bay shows more red than mahogany. See mahogany.)

Beak.—The projecting mouth parts of chickens and turkeys, consisting of upper and lower mandibles. (See figures 1 and 2.)

Black.—Absence of spectral color. The opposite or negative of white.

Brassiness.—Having the color of brass; yellowish. A serious defect in all varieties of Wyandottes.

Breast.—As applied to fowls, this term is generally understood to mean that part which surrounds the fore part or keel bone. (See figures 1 and 2.)

Breed.—A race of fowls, the members of which maintain distinctive shape characteristics that they possess in common. Breed is a broader term than variety. Breed includes varieties, as, for example, the Silver, White and Buff varieties of the Wyandotte breed.

Breeder.—A broad, general term that designates the poultry raiser who produces fowls for any special purpose with the object of improving their value, or in conformity with an agreed standard of excellence.

Breeding In-and-In.—(See "inbreeding.")

Brown.—A color formed by mingling red, yellow and black.

Buff.—Standard buff color is a lustrous, orange yellow; sometimes described as a soft, brownish yellow.

Cape.—The short feathers on the back underneath the hackle, collectively shaped like a cape. (See figures 1 and 2.)

Carriage.—The attitude, bearing or style of a bird.

Chick.—The young of the domestic fowl, properly applied until the sex can be distinguished; sometimes used to designate specimens less than a year old.

Chicken.—Specifically, the young of the domestic fowl prior to the development of adult plumage; also used as a general term to designate all domestic fowls except turkeys, ducks and geese.

Class.—A group of fowls consisting of one or more breeds having a common place of origin or possessing certain special characteristics in common.

Cock.—A male fowl one year old and over.

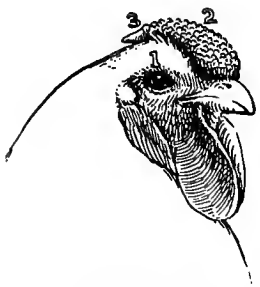


Figure 3.
Ideal Comb for Wyandotte Male—Any and All Varieties. 1. Base; 2. Rounded Points; 3. Point or Spike.

Cockerel.—A male fowl less than one year old.

Comb.—The fleshy protuberance growing on top of a fowl's head. All varieties of Wyandottes have rose combs. (See figure 3.)

Condition.—The state of a fowl in regard to health, cleanliness and order of plumage.

Coverts.—(See tail, flight and wing-coverts.) (See figures 1 and 2.)

Creaminess.—Having the color of cream; light yellow.

Crop.—The enlargement of the gullet in which a fowl's food is accumulated before it passes to the gizzard.

Cushion.—The mass of feathers at the rear of back of a fowl, partly covering the tail. (See figure 2.)

Disqualification.—A deformity or serious defect that renders a fowl unworthy to win a prize.

Disqualified.—Applied to a fowl that is unworthy to win a prize.

Domestic Fowl.—An individual of the genus gallus domesticus.

Down.—The first hairy covering of chicks; also, the tufts of hair-like growth that sometimes are found on the shanks, toes, feet or webs of feet of fowls.
(NOTE.—If the quill and web are discernible to the eye, it is a "feather.")

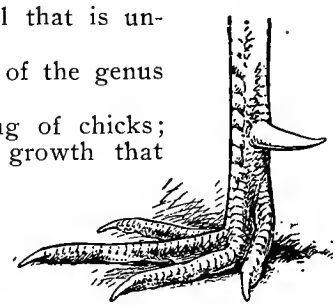


Figure 4.
Duck Foot (A Defect)

Duck-Footed.—The hind toe carried forward. (See figure 4.)

Ear-Lobe.—The fold of bare skin just below the ear. (See figures 1 and 2.)

Edging.—A narrow border of white or light color along the side or around the end of a darker colored feather.

Excrescence.—A disfiguring, abnormal or superfluous outgrowth.

Face.—The bare skin on the head of a fowl around and below the eyes. (See figures 1, 2 and 3.)

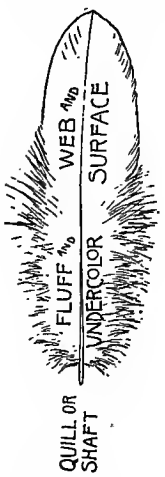


Figure 5. Sections of a Feather.

Faking.—Removing, or attempting to remove, foreign color from the face or ear-lobes when it is a disqualification; removing one or more side sprigs; trimming a comb in any manner; artificial coloring or bleaching of any feather or feathers; splicing feathers; injuring the plumage of any fowl entered by another exhibitor; plugging up holes in legs of smooth-legged varieties where feathers or stubs disqualify; staining of legs; in fact, any self-evident attempt on the part of an exhibitor to deceive the judge and thus obtain an unfair advantage in competition.

Fancier.—A breeder of poultry who seeks to produce chickens, turkeys, ducks or geese in conformity with an ideal or prescribed standard of excellence.

Feather.—A growth formed of a discernible quill or shaft and a vane (called "web") upon each side of it. (See figures 5 and 9.) (NOTE.—When quill is not discernible to the eye, it is down.)

Flights.—The primary feathers of the wing, used in flying but out of sight, or nearly so, when wing is folded. (See figures 1 and 2.)

Flight Coverts.—The short, moderately stiff feathers located at the base of the wing primaries or flight feathers, and partly covering their quills. (See figures 1 and 2.)

Fluff.—The soft feathers about thighs and posterior part of fowl; also the soft downy part of a feather. (See figures 1 and 2.)

Figure 6. "Frosting" on a Laced Feather.

Foreign Color.—Any color on a feather that differs from the color prescribed for such feather as a part of the plumage of a Standard-bred fowl.

Fowl.—A term generally used to denote the common, domestic cock or hen.

Frosting.—A white or light colored marginal edging or tracing on feathers of laced or penciled varieties.
(This type of lacing (see figure 6) in the breast of a male, red in the case of the Partridge Wyandotte or silver white in the Silver-Penciled Wyandotte, may denote that the specimen belongs to a line bred for production of exhibition females.)

Gray.—A color formed by blending white and black, frequently with a dash of red or other primary colors. In common usage, black modified by white to form a dull whitish tint.

Hackle.—The neck plumage of males, formed of the hackle feathers. (See figures 1 and 7.)

Hackle Feathers.—The long, narrow feathers growing on the necks of the males. (See figures 1 and 7.)

Hangers.—A term sometimes applied to the smaller sickles and tail-coverts of males. (See figure 1.)

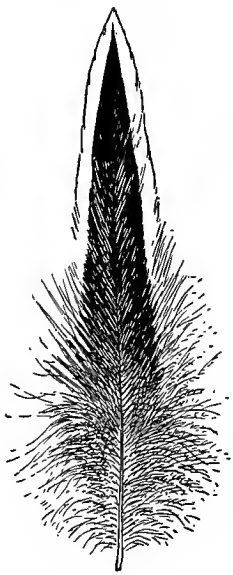


Figure 7.
Striped Neck (Hackle) Feather, Male (Ideal).

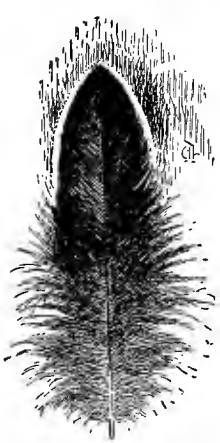


Figure 8.
Striped Neck Feather, Female (Ideal).

Head.—The part of a fowl composed of skull and face, to which the comb, beak, wattles and ear-lobes are attached. (See figure 1.)

Hen-Feathered.—A male bird that resembles a hen, owing to the absence of sickles, pointed hackle feathers, etc., is said to be "hen-feathered."

Hock.—(See "knee-joint"; also, figure 1.)

Horn-Color.—Dark, bluish gray under an enameled surface.

Inbreeding.—The breeding of very closely related individuals, as sire and offspring, or brother and sister. The closest form of line breeding.

Iridescent.—Exhibiting colors like those of a rainbow; a prismatic play of color.

Keel.—The median ridge on the breastbone of fowls.

Knee-Joint.—In fowls, the joint between the thigh and shank is called the knee-joint. (See figures 1 and 2.)

Knock-Kneed.—A deformity in which the legs come too near together at the knee-joints, and are bent outward, laterally, below the knees.

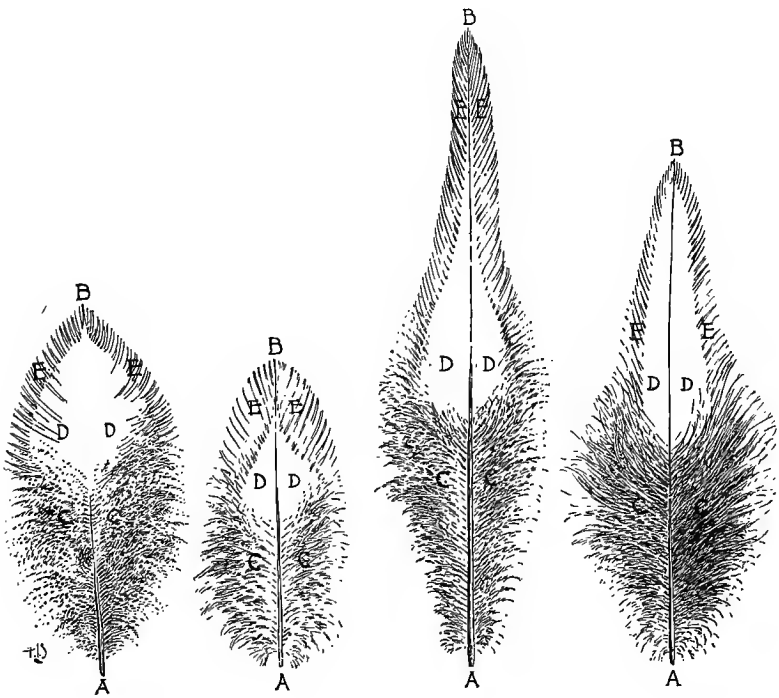


Figure 9.

DIVISIONS OF THE FEATHER

A. Quill or shaft at the root of feather. (See technical terms.)
B. Tip or point. (Extreme outer end.)
C, C. Fluff and undercolor. (See technical terms.)
D, D. Web and surface color. (See technical terms.)
E, E. Fringe (or border).

The fringe is that portion of a feather at the extremities of the web and tip where the fibers are not joined by barbules. In self or solid colors, this border or edge is more glossy than the web. In parti-colors the color changes usually at the junction of the central web and the border as in hackle of a Columbian Wyandotte.

Laced—Lacing.—A term applied to feathers edged or bordered with a well-defined band of color, different from the ground color of the feathers.

Leg.—Includes thigh and shank. (See figures 1 and 2.)

Line-Breeding.—Breeding from a male and female of the same strain or line of descent.

Lopped-Comb.—A comb falling over to one side. To disqualify for a lopped rose comb it must lop over far enough to come in contact with one side of the head or obstruct the sight. (See figure 12.)

Luster.—The special brightness of plumage that gives brilliancy to the surface color of the fowl or section.

Mahogany.—A brownish-red. (See Bay.)

Mealy.—Having the appearance of being sprinkled with meal. Applied to buff or red varieties where the ground color is stippled with a lighter color. (See "Stipple," also figure 10.)

Figure 10. Mealy (Defective) Feather.

Mossy.—Irregular, dark penciling appearing in feathers and destroying the desirable contrast of color. (See figure 11.)

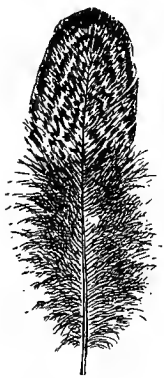


Figure 11. Mossy (Defective) Feather.

Mottled.—Marked on the surface with spots of different colors or shades of color.

Nostrils.—Openings beginning at base of beak and extending into the head.

Obtuse Angle.—An angle greater than a right angle, i. e., one containing more than ninety degrees. (See figure 22.)

Parti-Colored.—A term applied to feathers or fowls having two or more colors.

Pen.—(Exhibition) A male and four females of the same variety.

Penciling.—Small markings or stripes on a feather. They may run straight across, as in the Penciled Hamburgs, in which case they frequently are called "bars," or may follow the outline of the feather, taking a crescentic form, as in Silver Penciled and Partridge Wyandottes. (See figure 13.)

Peppered—Peppering.—Sprinkled with gray or black. (See "Mealy."

Pinion Feathers.—The feathers attached to the joint of the wing that is most remote from the body.

Plumage.—The feathers of a fowl.

Poultry.—Domesticated fowls reared for exhibition, or for their eggs, flesh, or feathers. Poultry includes chickens, turkeys, geese and ducks.

Figure 12.
Lopped Comb
(Disqualification)

Primaries.—(See "Flights.")

Profile.—A direct side view of a fowl. Applied to live specimens and to illustrations.

Pullet.—A female fowl less than a year old.

Pure-Bred.—Technically, a fowl whose breeding is "pure" with respect to certain characters. In general use, the term often is inaccurately used when "Standard-bred" is meant.

Purple.—A color produced by a combination of red and blue; includes all shades produced by this combination, such as lilac, violet, etc.

Quill.—The hollow, horny, basal part or stem of a feather. (See "Shaft"; also, figure 5.)

Red.—The spectral color opposite to blue. Red covers a wide range of hues and shades.

Rose Comb.—A low, solid comb, the upper surface free from hollow center and covered with small rounded points. This comb terminates in a well-developed spike which turns downward on Wyandottes. (See figure 3.)

Rump.—The rear part of the back of a fowl.

Saddle.—The rear part of the back of a male bird, extending to the tail and covered by the saddle feathers. (See figure 1.)

Saddle Hackle.—The long, narrow, pointed feathers growing from a male bird's saddle and drooping at the sides. (See figure 1.)

Scaly Leg.—One with incrustations or deposits upon and beneath the scales.

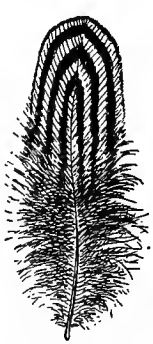


Figure 13.
Penciling, Crescentic Form
(Ideal).

Secondaries.—The long quill feathers that grow on the second joint or fore-arm of a fowl's wing, visible when the wing is folded. With the primaries, they constitute the main feathers of the wing. (See figures 1 and 2.)

Section.—A distinct part or portion of a fowl's body, especially one of the parts or portions considered in judging fowls.

Self-Color—Solid-Color.—A uniform color unmixed with any other.

Shaft.—The stem of a feather, especially the part filled with pith, which bares the barbs. (See figure 5.) Properly the part to which the vane is attached, but sometimes applied to the entire stem, including quill.

Figure 14.
One Form of Shafting (a Defect).

Shafting.—The shaft of the plume portion of a feather, being lighter or darker in color than the web of the feather. See figures 5 and 14.)

Shank.—The lower, scaly portion of a fowl's leg, exclusive of the feet and toes. (See figures 1 and 2.)

Sickles.—The long, curved feathers of the male bird's tail, properly applied to the top pair only, but sometimes used in referring to the prominent tail-coverts, which are also called smaller sickles.

Slate.—Gray, of medium or dark shades.

Slipped Wing.—A wing of a fowl not closely folded and held up in proper position; a defect resulting from injury or from weakness of muscles of wing. (See figure 15.)

Smaller Sickles.—See "Sickles."

Splashed Feather.—A feather with colors scattered and irregularly intermixed. (See figure 16.)

Spur.—A horn-like protuberance growing from the inner side of the shank of a fowl. It may be knob-like or pointed, acording to the age and the sex of the fowl. (See figure 1.)

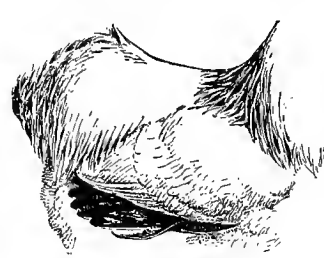


Figure 15.
Slipped Wing and Twisted Feather (Defects).

Squirrel Tail.—A fowl's tail, any portion of which projects forward, beyond a perpendicular line drawn through the juncture of the tail and back. (See figure 17.)

Standard-Bred.—Fowls bred to conform to the requirements of the American Standard of Perfection.

Stern.—The lower or under part of the posterior section of a fowl.

Stipple.—Verb, to execute on stipple, i. e., to draw, paint or engrave by means of dots instead of lines. Noun, the effect obtained in color work by the use of dots instead of strokes or lines. (See figure 18.)

Strain.—A family of any variety of fowls bred in line by descent by one breeder, or successor, during a number of years, that has acquired individual characteristics which distinguish it more or less from specimens of other strains of the same variety.

Stripe.—A line or band of color, regular or irregular in form, that differs from the body color of feather. (See figures 7 and 8.)

Figure 16. Splashed (Defective) Feather.

Striped Feather.—A feather, the surface of which contains a line or lines of color, regular or irregular in form, differing from the body color. When more than one stripe is present the feather is said to be laced or pencilled.

Stub.—A short feather or portion of a feather, when found between or under scales of shanks or toes.

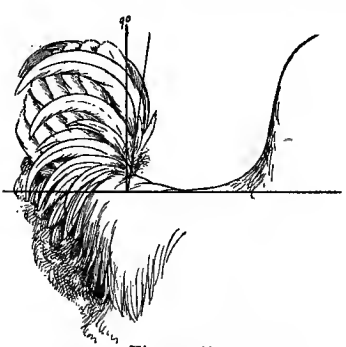


Figure 17. Squirrel Tail. (A Disqualification in Wyandottes.)

Surface Color.—The color of that portion of the plumage of a fowl that is visible when the feathers are in their natural position.

Symmetry.—Perfection of proportion; the harmony of all parts or sections of a fowl, viewed as a whole, with regard to the Standard type of the breed it represents.

Tail-Coverts.—The curved feathers in front and at the sides of the tail. (See figure 1.)

Tail Feathers. — Main; the straight and stiff feathers of the tail that are contained inside the sickles and tail-coverts; the top pair are sometimes slightly curved, but generally are straight. (See figures 1 and 2.)

Thigh.—That part of the leg above the shank. (See figures 1 and 2.)

Ticking.—Small specks of color on feathers, that differ from the ground or body color.

Tipped.—A term applied to a feather the web end of which differs in color from the color of the body or main portion of the feather.

Trio.—One male and two females of the same variety.

Twisted Feather.—Feather with quill or shaft twisted. (See figure 15.)

Typical.—Expressing a characteristic in color or form, representative of a breed or variety; for example, typical shape, meaning the form peculiar to a breed.

Undercolor.—The color of the downy portion of the plumage, not visible when the plumage of the fowl is in natural position. (See figures 5 and 9.)

Variety.—A sub-division of a breed (See definition of "breed") used to distinguish fowls having the Standard shape of the breed to which they belong, but differing in color of the plumage from other groups of the same breed. The general difference between the terms "breed" and "variety" is well brought out in the statement popular among breeders and fanciers: "Shape makes the breed; color, the variety."

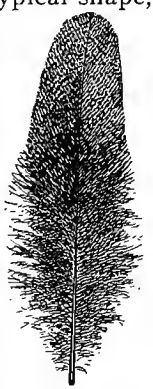


Figure 18. Stippled Feather (Ideal).

Wattles.—The pendant growth at the sides and base of beak.

Web.—Web of Feather: The flat portion of a feather, made up of a series of barbs on either side of the shaft. (See figure 5.) Web of Feet: The flat skin between the toes. Web of Wings: The triangular skin between the shoulder and forearm of wing.

White.—A composition of all colors; the opposite of black. Enamel White: White with glossy surface. Silvery White: A metallic, lustrous white, without trace of yellow.

Wing-Bar.—The stripe or bar of color extending across the middle of the wing, formed by the color or markings of the wing-coverts. (See figure 1.)

Wing-Bay.—The triangular section of the wing, below the wing-bar, formed by the exposed portion of the secondaries when the wing is folded. (See figures 1 and 2.)

Wing-Bow.—The upper or shoulder part of the wing. (See figures 1 and 2.)

Wing-Coverts.—The small, close feathers clothing the bend of the wing and covering the roots of the secondary feathers. (See figures 1 and 2.)

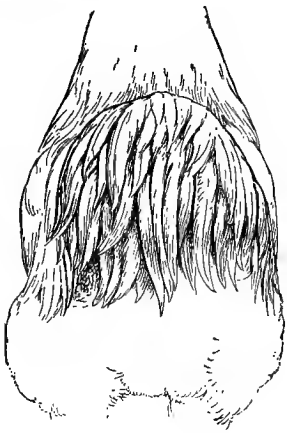
Figure 19.
Showing Wry-Tail,
(A Disqualification.)

Wing-Front.—The front edge of the wing at the shoulder. This section of the wing is sometimes called "wing-butt." The term wing-front is recommended, thus avoiding confusion. (See figures 1 and 2.)

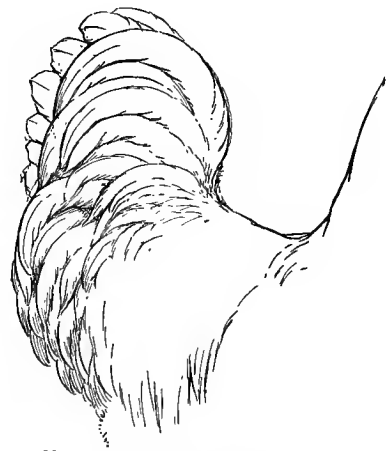
Wing-Point.—The ends of the primaries, sometimes erroneousy called "wing-butt." (See figures 1 and 2.)

Wry Tail.—Tail of a bowl turned to one side, permanently so. (See figure 19.)

Yellow.—The spectral color between green and orange, similar to gold; as applied to fowls' legs, beaks, etc., a rich, lemon-yellow is meant.



Rear View.
After Removing Feathers.



Side View.
Before Removing Feathers.

Figure 20.

Rear View after Main-Tail Feathers and Large Sickles Have Been Removed, Leaving Smaller Sickles and Tail-Coverts. (An Example of Faking for the Purpose of Improving Shape or to Destroy Evidences of Defective Color.)

SECTION II.

CHAPTER I.

INSTRUCTIONS FOR JUDGING WYANDOTTES.

MERIT.—The merit of specimens shall be determined by a careful examination of all sections in the "Scale of Points," beginning with symmetry and continuing through the list, deducting from the full value of each section of a perfect specimen, for such defects as are found in the specimen. Judges must familiarize themselves with the scale of points of each breed they are to pass upon to intelligently award prizes. And it must be understood that no more and no less value can be placed on any section than is provided for in the "Scale of Points." And it shall be further understood that this system must be applied whether judged by score-card or comparison. The minimum cut for any section shall be one-fourth of one point.

Weight.—All specimens shall be judged according to their Standard weights, provided, however, that the disqualifying weight for chicks shall not apply until December first of each year. Deduct two points per pound for amount lacking from Standard weights, and in that proportion for any fractional part of a pound, using one-fourth pound as a minimum, the specimen to have the benefit of any fraction less than one-fourth pound.

When adult specimens are equal in score and are above or below Standard weight, the one nearest weight shall be awarded the prize, except when one specimen is cut for weight, and the others are not, in which case the specimen that is Standard weight or above shall be awarded the prize. In the case of chicks or immature specimens having an equal score, when cut for lack of weight, the one of less weight shall be awarded the prize; but when each of such specimens is of Standard weight, or over, the one nearest weight shall be awarded the prize.

(CAUTION—The weight clause must not be understood to mean that a small but over-fat specimen is within the spirit

This chapter is taken from the Standard of Perfection, and is quoted verbatim, except for changes made necessary by the omission of such instructions as in no way apply to the judging of Wyandottes.

of the meaning of the Standard; the size must be proportionate to the weight, preserving the ideal shape and type of the Standard specimen.)

Reweighing.—The judge may, at his option, demand the reweighing of the specimens in competition, in all cases where Standard weights apply.

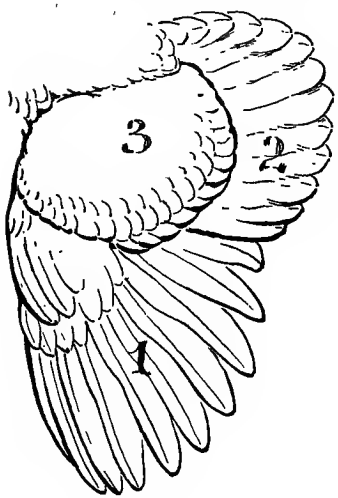


Figure 21.
Showing Divisions of Wing.
1 Flights or Primaries 2 Secondaries
3 Fronts, wing-bows and bar.

Wing Division.—In discounting the color of wings, the section shall be divided into three separate parts, allowing two points for fronts, wing-bow and bar; two for primaries and primary-coverts; two for secondaries and no greater value can be placed on any one of these parts. (See figure 21.)

Scores Entitling Specimens to Prizes.—To receive a first prize the specimen must score ninety points or more, except cocks of all parti-colored varieties, which may be awarded first prize, provided they score eighty-eight points or more. For each receding prize drop one point. A pen to win first prize must score one hundred and eighty points or more, unless it contains a cock of a parti-colored variety, in which case one hundred and seventy-eight points or more may win first prize; but first prize shall not be given on a pen if the male in the pen scores less than eighty-eight points. No prize shall be awarded an exhibition pen if any specimen in the pen scores less than eighty-five points.

Sweepstake Prizes.—In competition for sweepstake prizes, when

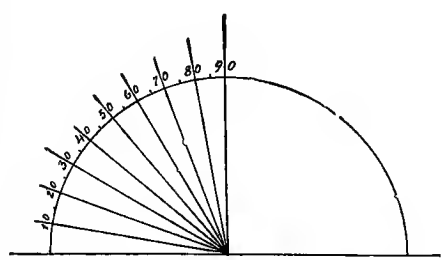


Figure 22.
Diagram Showing Degrees from Horizontal.

solid-colored specimens compete with parti-colored specimens, white specimens shall be handicapped two points each, black specimens one and one-half points each, buff specimens one point each; after such reduction, the specimen having the highest score, or the specimens having the highest average or combined score shall be awarded the prize.

Old and Young Specimens.—All other points being equal, where prizes are offered on old and young specimens competing together, the former shall be awarded the prizes.

Faking.—Faking of any description shall debar from competition specimens so treated. (See Glossary for what is meant by "Faking.")

Creaminess or Brassiness.—In White Wyandottes the presence of brassiness on surface, or creaminess of quills or undercolor is a serious defect and is to be discounted accordingly.

Bleaching by means of chemicals is such a harmful practice that where it is proved by other evidence than the condition of the specimen, or specimens, such bleached specimen or specimens shall be considered faked and disqualified.

Score of Exhibition Pen.—To ascertain the score of an exhibition pen, add the scores of the females together and divide the sum by the number of females in the pen; to the quotient thus obtained, add the score of the male and this sum shall be the score of the exhibition pen.

Dated Score Cards.—All score cards made out by judges applying the Standard are to be dated with ink, indelible pencil or stamp on the date the specimens are judged.

Defective Score Card.—It shall be considered irregular for a judge to sign a score card unless the weight is considered, regardless of the season.

Private Scoring.—Private scoring of specimens is not advisable and members of this Association are directed not to lend their support to the practice as a selling method. Judges are ordered to weigh each specimen and apply the proper cut and to make proper cuts for the condition of the specimen at the time the fowl is scored.

Ties.—In case of ties between two or more specimens that cannot be broken by any of the previous rules, the specimen receiving the smallest total sum of cuts for shape shall be awarded the prize. In case of ties on exhibition pens, when the tying pens contain either all old or all young specimens,

the adult pen shall win; when the tying pens are both adult or both young, the pen containing the highest scoring male shall win; when the tying pens contain females of mixed ages, the pen containing the highest scoring male shall win; when one of the pens contains all hens or all pullets, while the other contains females of mixed ages, the pen having all the females either adult or young shall win; when the tie cannot be broken by any of the above rules, the pen containing the lowest total of shape cuts in the five main shape sections shall win.

IN APPLYING THE COMPARISON SYSTEM.

Typical Shape.—In awarding prizes by comparison, judges must consider carefully each and every section of the specimen, according to the Scale of Points and not allow color alone, or any one or two sections to influence their decisions. The vital importance of typical shape is to be borne constantly in mind, at the same time giving due consideration to color in all sections, including undercolor.

Handling.—All specimens in competition must be handled and examined by the judge, except those that show decided inferiority as seen in coops.

Disqualifying Weights.—Specimens falling below disqualifying weights after December first of each year must be debarred from competition.

Standard Size.—In determining size, the judge shall decide by comparing the specimens in competition with due regard to weight in all varieties of this breed. When a bird fails to attain, or in case it exceeds, the size proportionate with the type or shape, it must be discounted quite severely.

Color Defects.—A few, very small, grayish specks in white fowls shall not debar a specimen that is otherwise superior in color from winning over one less typical in shape and sound in color; provided, however, that the gray specks do not appear prominently in the primary, secondary or main tail feathers.

Scaly Legs.—A fowl whose legs and toes are so deformed by what is called "Scaly Legs" as to hide or to appear to have destroyed the color, shall not be awarded a first prize.

Note.—Under the comparison system, judges must deduct the full valuation of the cuts in all sections where a specified cut is made under the heading of "Cutting for Defects."

CHAPTER II.

GENERAL DISQUALIFICATIONS FOR WYANDOTTES.

IF, in applying the Standard of Perfection, judges find any of the defects described below, they shall disqualify the specimen and state on the proper card or blank the nature of the disqualification:

Specimens unworthy of a score or lacking in breed characteristics.

Any feather or feathers, stubs or down on shanks, feet or toes; or unmistakable indications of feathers, stubs or down having been plucked from same.

Web feet.

More or less than four toes on either foot.

Legs or toes of color foreign to the breed.

A wing showing clipped flights or secondaries or both.

Deformed beaks.

Decidedly wry tails.

Crooked backs.

Combs foreign to the breed.

Combs falling to one side, or so large as to obstruct sight.

A comb which merely turns over a trifle from the natural, upright position is not to disqualify.

Absence of spike.

Entire absence of main tail feathers.

Decidedly squirrel tail. (See figure 17.)

Ear-lobes more than one-quarter positive enamel white or unmistakable evidence of an attempt to remove such defect.

Any appearance of crest or beard.

A specimen falling more than two pounds below Standard weight.

Faking in any manner shall disqualify the specimen.

Under all disqualifying clauses, the specimen shall have the benefit of the doubt.

Note.—Red pigment on sides or back of shanks is not to be considered a defect.

CHAPTER III.

CUTTING FOR DEFECTS.

THESE cuts should not be confused with nor take precedence over the valuation given each section in the Scale of Points of all varieties.

Judges, in applying the score card, are to discount for the more common defects, as follows:

Frosted combs	½*
Roughness, irregularity, hollow center, over-size and ill-shape in comb, each defect	½ to 2
Rear of comb turning round	½ to 1
More than one spike in rear of comb, each	1
Coarse texture of comb	½ to 1
Gray or white in any except disqualifying sections of plumage of Partridge Wyandottes	½†
Coarse texture of wattles	½ to 1
Lack of luster on surface in Black Wyandottes in each section calling for luster	½
For missing feather or part of feather in primaries or secondaries, where foreign color disqualifies	1 to 3
Where feather is broken, but not detached, in primaries or secondaries, where foreign color disqualifies	½
For broken or missing feather or feathers in primaries or secondaries of buff or parti-colored varieties, where foreign color does not disqualify	½ to 1
Absence of sickles, where foreign colod disqualifies for each sickle	1 to 1½
Absence of sickles, where foreign color does not disqualify, for each sickle	1
Absence of one or more main tail feathers in varieties subject to color disqualifications, each	1
Absence of one or more main tail feathers, when not a disqualification, each	½
For twisted feather or feathers, in wing or tail of any variety	1 to 2
Brassiness in all varieties, in each section where found	1 to 2
Creaminess of plumage or quill in White Wyandottes, in each section where found	¼ to 1½

Purple barring in plumage, in each section where found ..... ½ to 2
Frosty edging in any laced section, in each section where found ..... ¼ to 1½
Irregular, indistinct, crescentic, or too heavy lacing in laced sections, in each section where found ..... ½ to 1½
Light colored shafting in Buff Wyandottes, in each section where found..... ½ to 1½
Gray specks in any part of plumage of White Wyandottes, in each section where found.... ½ to 2
Mealiness in plumage of Buff Wyandottes, in each each section where found..... 1 to 1½
Irregular or deficient penciling in Silver Penciled and Partridge Wyandottes, in each section where found ..... ½ to 1½
Black or white in Buff Wyandottes, in each section where found, cut from one-half point to the color limit of the sections.
Slate undercolor in Buff Wyandottes, in each section where found..... ½ to 1¼
Color of eyes not as described for the different varieties ..... ½ to 1½
If eye is destroyed, leaving only the socket..... 1½
If eye shows permanent injury, but retains its form ..... ½ to 1
Ear lobes of Wyandottes showing any positive enamel-white ..... ½ to 2

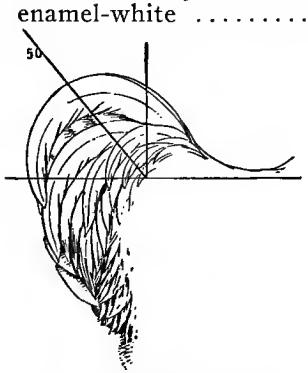


Figure 23.
Tail Carried at an Angle of 50 Degrees.

If tail in any specimen shows not to exceed three-fourths development 1
If tail in any specimen shows not to exceed one-half development 2
If tail in any specimen shows not to exceed one-fourth development 3

Crooked breast bone..... ½ to 2
Crooked toes, each..... ½ to 1

*To shape limit †To color limit.

.....

(Names of Association, here)

.....

(Date; month, days and year show is held, here)

OFFICIAL SCORE CARD OF THE AMERICAN POULTRY ASSOCIATION

Exhibitor .....

Variety ..... *Sex* .....

Entry No. ..... *Band No.* ..... *Weight* .....

	Shape	Color	Remarks
Symmetry			
Weight or Size			
Condition			
Comb			
Head			
Beak			
Eyes			
Wattles and Ear-Lobes			
Neck			
Wings			
Back			
Tail			
Breast			
Body and Fluff			
Legs and Toes			
**Crest and Beard*			
†Shortness of Feather			
Total Cuts		*Score*	

....., *Judge*

....., *Secretary*

*Applies to Crested Breeds. †Applies to Games and Game Bantams.

Score cards may be obtained from the Secretary of the American Poultry Association.

SECTION III.

CHAPTER I.

STANDARD MEASUREMENTS.

THE term "Standard Measurements" refers to the relative size of the different parts of a fowl and not to any definite mathematical statement of length, width or circumference, as no such definite standards have ever been established. This may be done some time, but for the present the breeders' sole guide in determining the correct measurement of sections must be the eye, trained to observe correct proportions between the different body parts. These proportions are established by the American Standard of Perfection, and the inexperienced beginner and the expert judge alike must form their estimate of the degree to which a given section of any individual fowl corresponds to the ideal by a careful study of such sections in comparison with Standard ideal illustrations and Standard descriptions of that breed and sex.

The person who is accustomed to thinking of animal measurements as being determined by the use of tape, ruler or calipers may find it a little difficult to accustom himself to regarding the soft, pliable surface of a fowl's plumage as forming the final outline of practically all its parts. For the purpose of judging, however, such outlines are as distinct and final as solid flesh, assuming, of course, that the plumage is in its natural orderly arrangement.

It should be clearly understood that the use of the terms "broad," "long," "moderately long," "short," etc., does not in any case involve comparison with other breeds of fowls. In all instances, they refer to comparisons between the different sections of the bird under consideration, and with the Standard illustration of the ideal bird of the same breed and sex.

For example, the head of the Standard Wyandotte male is described as "short, round, broad." This does not mean that it is short and broad as compared with the head of a Leghorn, on the one hand, or a Brahma on the other, but it

means short and broad when compared with other sections of the same bird. The Standard could have specified a small, delicate, finely cut head for the Wyandotte male, or one that would be distinctly large. What it actually has done, however, is call for a head "short, round, broad"—short and broad when compared with other parts or sections of the bird. The Standard goes farther and exactly illustrates the correct proportion in the cuts on page 12 and the following pages, so that the breeder may have at hand an exact "pattern" for comparison.

The head of any individual Wyandotte male, therefore, approximates correct size just in proportion as it conforms to the development indicated. And the same principle applies to all other parts or sections of Standard-bred fowls.

The full page illustrations show ideal profiles of males and females of all the different varieties of Wyandottes and elsewhere in the book will be found illustrations showing the proportions of such other parts as cannot be exactly shown in the profiles. The beginner who makes a careful study of these illustrations will at no time have to go outside of this book to determine what is meant by any term relating to proportion. (H. W. J.)

CHAPTER II.

COLOR TERMS.

POULTRYMEN generally have found it quite difficult to agree upon exact shades of color for different breeds and varieties of fowls and more or less confusion has always existed on this point. One reason for this is the great variety of possible shades in all colors. The Standard Dictionary, for example, recognizes over one hundred and sixty kinds of "red" and over one hundred kinds of "black," with a similar range in other colors. The situation is further complicated by the fact that no exact definitions of color terms exist that enable one to determine with any certainty the precise shade of color specified in any given instance. Neither has it been found practicable to produce a color chart that can be used with any degree of certainty. It is undoubtedly true, in the case of all colors, that the true and exact shades can be learned only by observation.

In the Glossary, on pages 14 to 25, and in matter descriptive of the different varieties of Wyandottes, colors have been defined as accurately as can be done in a few words and it is hoped that the reader will, from these descriptions, be able to form a fairly accurate idea of the colors called for in these varieties. In addition to these brief definitions, however, the following explanations of color terms applied to Wyandottes doubtless will prove helpful to many.

Golden-Bay.—Golden-bay is found in the feathers of typical Wyandotte. It is a lighter shade than the bay of the eyes and has a distinct yellowish tint.

Reddish-Bay.—This color is called for in the eyes of all Wyandottes and, as a rule, is a distinct red, but with a brownish tinge. Bay in fowls' eyes varies from light to dark, but the ideal is medium in shade.

Black.—In all varieties of Wyandottes, black means either a greenish-black, that is, a solid black with a greenish sheen, or a dull, intense black.

Green.—Green does not exist as a positive color in the feathers of fowls, but is produced by the structure of the feather, the parts of which set somewhat like prisms, thus producing an iridescent effect which in black feathers of a certain character gives a brilliant green sheen. Under some conditions this sheen gives a purplish effect, which is highly objectionable in Wyandottes.

Brown.—Brown and mahogany should be considered together to get a clear understanding of these closely related colors. Brown is composed of red, yellow and black, giving a color darker and more somber than bay and, in fowls, shows little red. Mahogany also is formed of red, yellow and black, but describes a color verging on chestnut, though lighter in tone, i. e., containing a little more red and yellow. Mahogany closely approximates the color of chestnuts when first taken from the burr and is lighter and redder than the color of chestnuts as ordinarily sold in market.

Buff.—A yellow-toned brown, that is, a yellow darkened with red and black. Different shades of buff are found, ranging from lemon buff to a distinct reddish-yellow. Bearing in mind that yellow is the color of gold, the "rich, golden buff" called for by the Standard must be understood to be a golden yellow.

Gray.—This color, as applied to Wyandottes is used chiefly in connection with the appearance of objectionable dark

markings in feathers that should be clear white or other color. Gray is a black reduced with white until it is of a dull, neutral shade. Black as a disqualification or defect must be "positive" black, that is, unmodified by white.

Purple.—As applied to the black feathers of fowls usually appears in the form of barring, and is commonly supposed to be indicative of "too much luster." Both purple and green apparently are produced by the reflection of light from prismatic black feathers. The exact reason why some feathers show green shades and some purple is not clearly understood. It is probable that the purple is due to a reddish element, which tends to crop out as a result of poor breeding.

Red.—This is supposed to be the original color of fowls, and in crosses or in careless breeding is liable to appear at any time. Fowls of all colors, apparently, carry red as a latent color factor. Red in White or Black Wyandottes is a disqualifying defect.

White.—Pure white is a dead white, without any other shade, though, as a matter of fact, what passes for a pure white has a bluish tinge, as a rule. It is common knowledge that the "whitest" white fowls are very apt to have some feathers with a light flecking of gray where the black pigment, which gives the bluish tint, has become too conspicuous.

Silvery white is pure white with a sheen, as often seen in the hackle and saddle feathers of male Silver Penciled Wyandottes.

Yellow.—This is the color of beaks, shanks and feet in most varieties of Wyandottes, which are clear, rich yellow, closely approaching lemon-yellow. Yellow also is an important color in the plumage of fowls, though it never appears there as a pure color—being modified in all cases by reds and blacks, thus producing buff, bay and brown shades of varying degrees of intensity. (H. W. J.)

SCALE OF POINTS

FOR JUDGING WYANDOTTES.

All Standard Varieties

SILVER WYANDOTTES

GOLDEN WYANDOTTES

WHITE WYANDOTTES

BUFF WYANDOTTES

SILVER-PENCILED WYANDOTTES

PARTRIDGE WYANDOTTES

COLUMBIAN WYANDOTTES

BLACK WYANDOTTES

Symmetry	4
Weight	4
Condition	4
Comb	8
Head — Shape 2, Color 2	4
Beak — Shape 2, Color 2	4
Eyes — Shape 2, Color 2	4
Wattles and Ear-lobes — Shape 2, Color 2	4
Neck — Shape 4, Color 6	10
Wings — Shape 4, Color 6	10
Back — Shape 5, Color 5	10
Tail — Shape 5, Color 5	10
Breast — Shape 5, Color 5	10
Body and Fluff — Shape 5, Color 3	8
Legs and Toes — Shape 3, Color 3	6
	100

PART TWO

Successive Stages of Development in Domestic Fowls.

SECTION I.

Chapter I—Origin and Development of Domestic Fowls.

SECTION II.

Breeding of Domestic Fowls.

Chapter I—General Principles of Breeding Domestic Fowls.

Chapter II—Principles of Breeding, from a Poultryman's Standpoint.

SECTION I.

CHAPTER I.

ORIGIN AND DEVELOPMENT OF DOMESTIC FOWLS.

THE ORIGIN OF FOWLS is a subject in which the ornithologist is much more deeply interested than the practical poultryman, the breeder, or even the ardent fancier; and, it is a topic that he alone is competent to discuss. The accounts that we find in the best poultry works vary considerably. Hence, we say that it is a subject upon which the student of ornithology, alone, is qualified to pass judgment.

The origin of domestic fowls is generally attributed to the Gallus bankiva, or ferrugineus, commonly called the Jungle Fowl of India, which some claim are still to be seen there. Specimens claimed to be such were exhibited at the Madison Square Garden Show, New York, not more than ten or possibly fifteen years ago. These specimens bore a close resemblance to the illustrations of the Jungle Fowl which we find in poultry books published about the middle of the nineteenth century. On the other hand, it does not require a great stretch of the imagination to see them as the result of a cross between a Black-Red Game Bantam and a Brown Leghorn. In fact, they looked like a somewhat overgrown specimen of the former, while the plumage resembled that of the latter when unscientifically bred.

Variation in Early Types.—Some authorities maintain that birds varying in type as widely as do different breeds of our domestic fowls, as for instance the Game Bantam and the Brahma, or the Cochin and the Game, could not have been produced from one species, and that our present day domestic fowls must trace their origin back to at least two sources.

Edward Brown, in Races of Domestic Poultry, points out the fact that naturalists as a rule for a time accepted the Darwin theory, that all races of our domestic fowls were descendants of the Gallus ferrugineus, the Jungle Fowl of India, while poultrymen as a rule refuted this and accepted the theory

first advanced by Lewis Wright, that it was improbable that several of our breeds, particularly those we obtained from China, were descendants of the Gallus ferrugineus. If so, we must go farther back to find the common ancestry.

W. G. Tegetmeir, who, according to Brown, was associated with the great Darwin in his research work, took the view that while a large part of our present day domestic fowls could trace their ancestry back to the Gallus bankiva, it was more than improbable that fowls of certain types, such as the Brahma and Cochin, could also. These, in his opinion, which he cites apparently after years of research and study, must have descended from a different branch of the genus, either now extinct or modified to such an extent that it is classed with some other species of the Gallus family. This, of course, means that we must go back of the Gallus bankiva to find the common ancestry.

Brown, in the excellent work mentioned heretofore, gives the sum and substance of our knowledge at the present time in the following paragraph:

"To sum up, therefore, it may be taken that with the domestic fowl, as with many other natural forms of life, we can go so far back, but no further. The probability is that, as in the case of dogs, all the varieties of fowls do not owe their origin to any one species, at any rate of those now extant, and that we must look to another progenitor than the G. ferrugineus (bankiva) for several of the later introduced races, more especially those from China."

Incentives to Poultry Keeping.—While we have fanciers and breeders of Standard fowls among us by the thousands that are engaged in this work purely for the pleasure that they derive from it, the income therefrom or, more directly, the food supply derived is the great incentive to poultry keeping with a very large majority. Nevertheless, all of the available accounts of ancient literature indicate, and the probabilities are that the love of sport first induced the natives of India, in which country fowls were first found, to domesticate wild fowls; and to obtain specimens better endowed physically for cock fighting, a sport that has been the natives' leading amusement until the present time, they bred fowls after their own selection.

Introduced into Europe.—Starting in India, the keeping of fowls with civilization crept westward through Asia and Europe into Italy, Spain, France, Belgium and England. Be-

sides their indebtedness to the fowls that developed from this early introduction, the European countries, England especially, owe much to the importations during modern times. Many of the fowls that were obtained from China early in the nineteenth century were of widely different types from those that migrated through Western Asia and Eastern Europe some centuries before.

First Authentic Accounts.—Exact information upon poultry topics is exceedingly meager until within the last one hundred years or so. Almost nothing of the methods employed in keeping flocks or of the description of the breeds is found up to the early part of the nineteenth century, and it is about the middle of this century before anything satisfactory is found upon either topic. We are obliged, therefore, to draw most of our conclusions concerning the evolution and transition in both, partly from the evidence supplied by the accumulative results of which we are the eye witnesses, partly from such literature of the transitory periods as is available, and somewhat from the information given by our veteran associates.

Types—Geographical.—The English and French have been particularly zealous in developing splendid breeds of fowls which have a leaning toward a fine meat carcass rather than to heavy egg production. The Spaniards, Italians, and Hollanders have paid more attention to egg-producing qualities. The Asiatic races produced the largest and most magnificent of all fowls, which were also the most pronounced meat types.

Early American Importations.—Comparatively early in the life of the nation, Americans adopted many foreign breeds. About the middle of the nineteenth century, especially a little later, the large Asiatic breeds found much favor with poultry keepers in this country. Their influence upon breeds that originated here is incalculable. The late Mark Pitman, a former resident of Salem, Massachusetts, once related to the writer some interesting facts about these importations. From this account it appeared that many of them were not undertaken for the purpose of acquiring new blood or new breeds for the American poultrymen, but for no higher motives than to provide fresh meat from time to time for the shipmaster's table. Those fowls that reached America alive owed their survival to their lean condition as, unfortunately, the best were usually the first choice, and the poorest, because confined on shipboard, became eventually so poor that they were unfit for the table and survived the entire journey to become the pro-

genitors of new races or strains. This information enables us to understand why so few of the importations became established and why so many failed to perpetuate themselves.

English Types in America.—English importations have been frequent all along since the middle of the nineteenth century. The English developed a few breeds that were exceedingly popular during the early days of modern American poultry keeping. With the advent of purely American breeds, however, the popularity of these breeds rapidly declined. The English breeds of today most commonly kept here are of later origin and partake more of the nature of the American breeds.

American Types.—That the people of some nations seemed intent upon producing breeds that excelled in egg production, while others were equally zealous in their endeavors to produce breeds that surpassed in the quality of their flesh, has already been pointed out. Americans, however, were never content in attempting to excel in but a single quality. It is a noteworthy fact that all our American breeds are the result of attempts on the part of one or more breeders to make a cross, or a series of crosses, that would establish a new breed which excelled all those that had preceded it for egg production, for quality of flesh, and for quantity of flesh compared to offal.

A study of the history of the recognized American breeds will confirm these statements. Their names alone will establish the fact that American endeavor has been extended wholly along dual-purpose lines. (A. C. S.)

SECTION II.

CHAPTER I.

BREEDING DOMESTIC FOWLS.

THE advancement, as heretofore related, has been an accomplishment of the "breeder's art," which consists of many methods and systems of selection and mating.

Mating—By Natural Selection.—Prompted by natural instincts to reproduce and perpetuate the species, fowls, in the wild state, themselves choose mates of the opposite sex as they will in domestication, if allowed to do so. What attributes or caprice influences this selection is as yet undiscovered by the closest students of the life and habits of either domesticated or wild fowls. Yet, it does seem that the more magnificent and lordly males are always surrounded by a flock of admiring and obedient females. If this is the true situation, it is then a wise natural provision, because it means that the strongest, most rugged and vital of the males become the consorts of the females to the exclusion of the weaker. The doctrine of survival of the fittest, then, has a wide reaching influence; inasmuch as each male consorts with several females comparatively few males are necessary, and only the most select as to physical fitness have an influence upon the progeny.

The inclination of the male to gather about him a half-dozen, a dozen, or a score of females is, from an economic standpoint, a lasting advantage; not so much because so few males have to be kept, but because it is necessary to permit only the males that are best from the breeders' standpoint, whether it be for size, egg-producing, lineage or brilliant plumage, in the breeding yards.

Artificial Selection.—Promiscuous matings are no longer a feature of our well-conducted, modern poultry establishments, large or small. The intelligent poultryman must supply a product that measures up to a certain "standard." Whether that "standard" demands a certain number of eggs a year per hen, or eggs of a certain color, or size, or weight; a fowl that produces a given number of pounds of flesh in a given time,

or one that develops feathers that grow backwards, is immaterial. Only those males and females that excel in the characteristics demanded by this particular "standard" are used to perpetuate that particular race or kind of fowl, because those, and only those that excel in the characteristics demanded, will reproduce them in the greatest measure.

Systems.—In order to reach their goal, whatever that may be, breeders of all kinds of poultry, for any and all purposes, long ago adopted methods that were sure to prevent their birds mating by natural selection and substituted selections of their own. This has led to different systems of matings. At first these were very simple, but the longer the fowls were studied the more exacting standards became; and the deeper breeding problems were probed the more complicated they seemed, so in time the system of mating became more or less complex, until now, in some cases, the system itself, though simple in theory, is such that the application becomes most complicated. There are instances, however, when the system of mating, though seemingly complicated, is very simple of application. In several well known instances, the system that is the simplest and clearest to understand becomes the most difficult to practice successfully, while the one that is more complicated, theoretically, is found to be more easily applied and more certain of results.

Single Matings.—In the beginning, whether mating for egg production, large size, or certain excellencies in plumage, real or imaginary, the breeder selected for his matings the specimens of both sexes that nearest approached his ideals. This constitutes what is now known as a single mating. That is, a single mating is one in which both sexes conform more or less closely to a certain ideal or standard; each sex of the progeny of such a mating is also expected to conform more or less closely to the requirements of such an ideal or standard. Under the American Standard of Perfection, a single mating consists of a male and females that conform to a certain degree of approximation, at least, to requirements for that breed and variety, as described and portrayed in the afore-named Standard. As two females alike in all respects have never been produced, a strict definition of an ideal single mating would be —a mating consisting of a male and females conforming to the requirements of the Standard of Perfection, and the ideal results from an ideal single mating would be sons like the sire and daughters like the dam. In other words, both the parents

and their progeny would be ideal specimens, judged according to the Standard of Perfection. Of course, ideal birds never existed and undoubtedly never will. Therefore, a practical definition has already been given.

This system of mating is almost universally practiced in the breeding of solid-colored varieties; and very much in the breeding of parti-colored varieties, but not universally so by any means.

Intermediate Matings.—Before the art of breeding had been practiced long under the several Standards that preceded the one that now governs our breeding operations, it was discovered that the same hen that produced the best males in the parti-colored varieties, did not produce as a rule the best females when judged by the accepted Standard. This discovery led to the practice, after observing results from different individuals, of using in many matings females of different types of plumage, some from which the best males and others from which the best females were expected. This became a common practice. Usually a small number, say one, two or three females from which the best exhibition males, and four, five, six, or more from which the best exhibition females were expected, were placed in each mating. It is really a modification of both, the single mating and double mating systems, and, because it partakes of the nature of both, may be called an Intermediate System. It is in reality an application of double mating principles on one side of the mating, the female, and thereby an acknowledgement of the necessity of double mating. It may be said to have been the first step toward the practice of double mating and was in common use long before the adoption of the double mating system in its entirety. This modification of the single mating system is still practiced by those who breed parti-colored varieties, and who are opposed to the system to which allusion has been made, as apparently complicated but of easy application in actual practice.

Double Matings.—The double mating system is known only among breeders of standard-bred poultry because it is not practiced by breeders of other forms of animal life. It may be defined as a system which employs special and separate lines of fowls and breeding to produce exhibition males and females. That is, under this system, the exhibition male line only is used to produce exhibition males or with any expectation of doing so. The females of the male line as well as the

males are expected to produce exhibition males and no exhibition females. The same principles hold true for the exhibition female line; both male and females of the exhibition female line are expected to produce exhibition females. The males are in turn used to breed exhibition females, but the males are not expected to be exhibition birds, or to produce exhibition males. That is, as already explained, the province of the male line.

Though already stated, the fact should be emphasized that this system of mating is commonly practiced only by breeders of parti-colored fowls. The conclusion can be clearly drawn that separate matings to produce standard males and standard females are necessary on account of color requirements. Seldom are separate matings used, or even thought to be necessary, to produce the requirements for shape of either males or females. Such expediencies have been resorted to very infrequently and the practice has passed almost entirely out of use. It is generally considered that the standard shape of male and female coincides when due allowance has been made for natural difference in shape of male and female. In this regard the experiences and practices of poultry breeders do not differ in any particular from those of breeders of other animals. The breeders of forms of animal life in which little attention is paid to color, never think of, let alone use, a special or separate line of breeding for each sex.

From the facts as stated, it appears that we must find our excuse, if excuse it may be called or if an excuse is necessary, which is doubtful—better should we call it a necessity—for special or double matings to produce the males and females that nearest approach the standard descriptions among parti-colored fowls, in the color requirements alone.

The first question that comes to mind is, why not adopt a standard description for males and females of the parti-colored fowls that would coincide, making due allowances for the natural color differences of the two sexes, as we have in shape?

The answer to this question is found in others like it. Can it be done? When has it been accomplished? If a standard could be written in which the color description of both males and females of parti-colored fowls would be such that standard-colored males and standard-colored females, mated together, would produce standard-colored males and standard-colored females, would breeders and exhibitors be satisfied with the appearance of both sexes? It is conceded that the best males

to produce exhibition females, of the parti-colored varieties, are the sons of the best exhibition females. Therefore, if we are to make a standard that will permit the highest attainments of color and markings in the females of parti-colored varieties, we must describe for their ideal mates, the sons of such females. Do the sons of such follow very closely the present standard description, and, if not, would an adequate description of the sons of females of high standard quality, as we find them, be acceptable to the breeders of many of the parti-colored varieties? It must be fully taken into consideration that an accurate description of such must be accepted as our standard ideal, if we are to have a Standard based upon the highest ideals of female plumage.

On the other hand, if we accept the present Standard for exhibition males and we propose to have a Standard that is such that both exhibition males and females can be bred from a standard (single) mating, the description of exhibition females in the (proposed) standard must coincide with the description of the females that our best exhibition males produce, as the females that produce our best exhibition males are always the daughters of our best exhibition males. Therefore, one method of making single mating feasible would be to adopt the present Standard on males and for the standard females describe such females as the best exhibition males produce. The adoption of such a standard, one based on the present exhibition males and the daughters of exhibition males, would mean that the exhibition females as at present described in the Standard would disappear from the show room and in all probability from the breeding yards as well.

This might be one way of making successful single matings possible; the other, as already pointed out, might be by accepting the description of the standard female and adopting in place of the present description of the standard male, a description of such males as the best standard female produces.

Theoretically, a single or standard mating under these conditions should produce standard specimens of both sexes. The vital question is not, however, will a standard or single mating produce standard chicks of both sexes, BUT—because it is the best specimens that we seek to produce for exhibition purposes—the question most positively becomes, will the best male mated to the best female produce both the best males and the best females? That is the vital question, for if the best male mated to the best female would produce only the best

males—then, in order to produce our best females, we need a slightly different female with this sire, or we need a little different male with the dam.

If the original pair produces the best females, but not the best males, the same fundamental change must be made in the mating to produce the best males. A different male with the dam, or another and different female must be mated with the sire.

But when two females that differ in either color or markings are used with the same male, one intended to produce the females nearest approaching our ideal, and another to produce the male nearest the ideal, so radical a departure from the principles of single mating is incorporated that an admission of the necessity of a special mating to produce the best ideals of either sex becomes most pronounced.

To pursue this line of thought a step further—how often would a mating consisting of the best male and the best female produce the best males and best females to comply with any fixed standard of color or markings in parti-colored fowls? How often would such a mating produce either the best males or females and how often would it produce neither? Much more often by far than not, it will produce neither the best males nor the best females, make the Standard read as you like.

On the other hand, under the present Standard by using special matings for each sex, it is known to be more than possible to produce the best males by breeding such to their own daughters or daughters of other high quality males. Results of this kind have been accomplished for years and are being accomplished continually. Like results are being accomplished in breeding the best exhibition females by mating such to their sons or the sons of other females of high exhibition quality.

If the Standard is fundamentally wrong because special matings for each sex are necessary to meet its requirements, the problem for solution is not how may we change the Standard to make these special matings unnecessary, but how may we make a Standard so that its requirements will not place a handicap on standard matings, and a premium upon special matings for each sex. The problem has been before us since the first Standard was made, and as yet no one has offered a solution that seemed theoretically plausible, let alone being practically possible. Special matings have been producing the best specimens all these years. From either standpoint,

performance or theory, the argument favors the product of special matings for each sex.

At the present writing, there is unquestionably a strong desire on the part of breeders and exhibitors generally to adopt standard (or single) matings, even if the Standard has to be modified or changed in order to permit the breeding of the best specimens of both sexes from one mating. The object is to simplify breeding problems for beginners, which, in the estimation of many, would do much to popularize a variety. But as yet no one has suggested a way to accomplish this that inspires the confidence of his contemporaries. Changes toward this end in standard requirements are accompanied by two serious considerations: first, will such changes, as it at first appears may tend to solve the difficulty, be acceptable when the result, namely, the specimens produced, come to view; and, secondly, would such changes or any changes, that have yet occurred to anyone, place a premium upon the progeny of standard matings by producing better specimens thereby, than can be produced by other methods, specifically by what is known as double-matings, which really amounts to a special mating for each sex? No system of mating can long endure after breeders find another way of producing better specimens. The final test is the closest conformity to the Standard requirements. Who, then, can compile a standard that will so state its requirements that the specimens produced from standard (single) matings will excel those produced by any other system that man may devise? The system that does that very thing will be most generally practiced by those who breed exhibition birds from now till the end of time.

In-Breeding.—That in-breeding is the surest and quickest way, if not the only way, to perpetuate desired characteristics is a generally accepted theory. It becomes, then, the fundamental means of establishing certain qualities in a line or a strain. The longer the in-breeding of successive generations which possess certain distinctive features is continued, the more fixed these features become.

Limit of In-Breeding.—How long in-breeding may be continued is an open and unsettled question. Obviously, the number of generations that may be inbred depends upon several things, the first of which is the relationship of the parents, whether these were unrelated, distantly or closely related. Secondly, it depends upon the stamina of the original stock, and further, or thirdly, upon how much stamina is maintained

by selection, for it is possible to select for strength and vigor as well as any other quality. In many cases stamina is the first and most important consideration for selection. Usually, in-breeding, if too long continued, results in loss of vitality, which is indicated by increased infertility, slower growth, smaller size, delayed feathering in the young, and after a time by weak and twisted feathers in adults. These highly undesirable qualities appear so gradually and increase in intensity so slowly in succeeding generations that they often diminish the value of many a flock very appreciably before they are detected.

Out-Crossing.—When such a condition is found to exist the only remedy is out-crossing. This consists, of course, of introducing the blood of some other line or strain into the flock; an expediency that is accompanied by danger of losing qualities that have been gained by several generations, perhaps, of in-breeding. There are, however, several modes of introducing new blood, some of which are accompanied by great risks, and others that, though somewhat slower in operation, are comparatively safe. New blood can be very quickly introduced by using a male of an unrelated line. The effect, as far as restoring vitality in all its phases is concerned, is almost magical, and usually, it is fully as efficacious in destroying the very characteristics to establish which in-breeding was practiced too long. Unless a male from a strain that possesses very closely the same attributes that have become so strongly established in the first strain can be secured, the introduction of new blood through the male, directly, is experimental, to say the least, and the results cannot be even approximately foretold, because even though the first out-cross produces specimens that are satisfactory, the second generation is very liable to prove disappointing in breeding prowess.

It is much safer to proceed slowly and cautiously. One safe mode of out-crossing would be as follows: a male of an unrelated line (B) may be bred to a few females of the first line (A) and the female progeny of this mating (BA) mated back to males of the first line (A), and so on for as many generations as seem advisable, using the female progeny for new blood, until the results are satisfactory, when the progeny may be recrossed with the original line, both ways. Occasionally the results of the first cross will be so pre-eminently satisfactory that males from this cross may be used upon the original line, but only in case the results are most satisfactory,

and even then it is better to guard against disappointment by also mating males of the original line to the females that are one-half new blood, by also maintaining the original line, or by both methods of safeguarding the merits of the original line.

A method commonly practiced, but not commonly enough, which is the safest from two standpoints, is to secure each year or every second year, a female from another strain, mate her with a male of the strain which needs, or may need, an infusion of new blood, and mate the female progeny with the sire or a male of the same line or same breeding as the sire. Both the males and females of this generation will usually have acquired the characteristics of the original strain to a marked degree and breeders may be thereafter selected by the same process as though the blood was of one strain.

Strain-building.—A breeder often desires to acquire, perhaps, a single characteristic, perhaps more than one, in which his strain is deficient. In order to do this, he is compelled to secure new blood from a strain that is noted for the predominance of the required characteristics. This may be accomplished in the ways that have already been indicated, accompanied by accurate selection for those characteristics. If the acquisition of several characteristics is desired, because a strain is notably deficient in these respects, the project becomes complicated, and it may be necessary to line-breed from the best representatives of one, two, or more strains.

Line-Breeding.—Among poultrymen line-breeding may mean at least one of two things. It may mean, as above, the inter-breeding of two or more strains with all the blood tracing back to a few specimens, usually of extraordinary merit, or predominating in the desired characteristics. The object is to amalgamate, eventually, the blood of all the strains employed until by perpetuating the desired characteristics, a new strain becomes established.

The term line-breeding is also used to refer to in-breeding, as when the sire is bred to his female progeny, the dam to her male progeny, or the offspring are bred together, and in-breeding among the progeny is continued, so that the blood of one or more birds reoccurs often in the ancestry of successive generations. That is, when by in-breeding or by in-and-in-breeding, a line is established based upon predominating excellencies of one or at the most two birds, the desirable qualities of which are thereby very strongly fixed in the progeny, it is line-breeding with the number of the breeding lines

that are traceable back to the bird or the pair of birds that laid the foundation of the line depending entirely upon the number of generations produced and the mode of breeding.

In-Breeding and Line-Breeding.—The terms "line-breeding" and "in-breeding" are often confused or misunderstood. From the foregoing, it will be understood that line-breeding may be in-breeding or may not. In case that the line is built upon the foundation of the blood of one pair of birds, line-breeding is in-breeding. Line-breeding may be practiced without in-breeding in its broadest sense by using blood of the same lines that is but distantly related.

In-breeding might be described, strictly, as the breeding of related birds, or birds that trace back to a common ancestor, but whether that is in effect in-breeding or not, depends entirely upon the closeness of such relationship. In-breeding in the mind of the average poultry breeder consists in mating the parent with the progeny, or the progeny of one common parent, at least, together.

Injudicious In-breeding.—There exists, without a chance for denial, a tendency among poultrymen to inbreed as long as the desired characteristics are maintained; and, if the desired characteristics are but "hobbies" of the breeder, the pleasure of producing these sometimes so blinds his perceptive faculties. that he fails to notice defects so grave in character that they nullify the excellent qualities to which he has become wedded. This fault in such an instance must not, however, be attributed to the systems of in-breeding or line-breeding, but to the blindness of the breeder as to these faults.

Stud-Matings.—Stud mating or stud breeding is practiced sometimes to prevent the male from consorting too much with favorites to the neglect of the other females, and sometimes to obtain as many chicks as possible from a male of more than average quality. The result of this neglect, in the first instance, is to restrict the number of females actually mated, and in the second, is an unnecessarily large proportion of infertile eggs. Stud-mating assures the impartial distribution of the male's powers of reproduction. A larger number of females may be fertilized by the same male by following this method, which is to allow the male and each female to mate only at stated intervals. In order to thus restrict the number of services each female shall receive, the males and females are kept separate, and at given intervals the females are placed in the male's pen or yard, one at a time, and removed either imme-

diately after mating, or when the next female is brought to the male. When trapnesting is practiced, it is handy to take the hen from the trapnest after laying to the pen in which the male is kept.

Resting Males.—Quite another method to increase the percentage of fertility of the eggs by overcoming the neglect of some of the females by the male, is to use separate males on alternate days. It is reasoned that with two males, fewer females would be neglected, as the males would be unlikely to select the same favorites. However that idea proves out, the common practice of confining each male on alternate days certainly affords an opportunity to rest, and eat sufficient food, of which opportunity a male, more than probably, does not avail himself while running with the females. Males, under this system, keep in better condition physically, and consequently are more able to propagate strong and vigorous offspring.

Large Matings.—Infertility of hatching eggs, accountable to the favoritism of males, is naturally infrequent in breeding flocks so large as to require the presence of several males. In this case, the explanation offered in the preceding paragraph remains true.

Individual Disposition.—The disposition of the fowl should receive serious consideration. Very often we see such individuals that when at a distance or unaware of the fact that they are under observation or in close proximity to a human being or any animal except those of their own genus, pose strikingly and show splendid form; yet when approached, go all to pieces, as the expression is, which means that they become so frightened that they lose all style, and all semblance of correct shape disappears. The most kindly overtures and best efforts to accustom these individuals to the ways of complete domestication are wasted, and only one conclusion is possible, namely, that such birds lack the ordinary intelligence even of their order of animal life. Such individuals are of little use either in the show coop or the breeding pen. In the show coop, because they stand unnaturally and awkwardly, and seem persistently intent upon making an escape, and must consequently show in poor form; and for breeders because dispositions as well as any other characteristics are transmittable and more than that, it is admitted that the contented, happy hen is the hen that lays most frequently, from which it follows that these individuals that lack contentedness to the extent of never being

competent to adjust themselves to their surroundings are poor layers as well as poor breeders and show birds.

From this it may be logically inferred that occasionally a bird reverts to its wild ancestry and is incapable of true domestication.

Mendelism*.—Mendelism is a law of inheritance discovered by Gregor Johann Mendel in 1868, and rediscovered by De Vries, Correns and Tschermak in 1900. It is generally considered under three heads: Unit characters, dominance, and segregation. The important feature is the latter, that is, the segregation of potential factors in the germ cells of crosses and their chance combination.

In animal breeding, absolute purity of all inherited factors is difficult to obtain, as the parents even in highly selected stock generally differ in their inheritance. Therefore, segregation and recombination invariably occurs. Hence the necessity for constant selection toward a desired end.

If the breeding of fowls involved simply one, two or a very few characteristics, the application of Mendelian principles would be easily followed and understood, but, as at present practiced, this application in the breeding of standard fowls with their many requirements in shape, color and markings, becomes a difficult problem.

However, the application of the Mendel law has had little, if any, bearing upon the accomplishments of breeders of standard-bred fowls. It is only within a very few years that Mendelian principles have been studied in this connection, and at the present time only a very few of the more studious and best educated fanciers and breeders are making efforts to apply these principles.

However, several of the state educational institutions and experiment stations are applying these principles, and closely observing and recording the results. The most important application is in connection with the inheritance in fecundity, the one feature in breeders that may be accurately stated, possibly accurately measured, though even in this case, the influence of location, environment and climatical changes from season to season, month to month, etc., may, of course, affect the results. (A. C. S.)

*For a complete treatise of this subject, the reader should consult some work on "Genetics."

CHAPTER II.

PRINCIPLES OF BREEDING.

FROM POULTRYMAN'S STANDPOINT.

WHATEVER progress has been made in the development of different races of fowls, and from the Jungle Fowl to nearly one hundred and fifty distinct varieties, all of which have distinguishable and distinct marks of beauty, marks as great progress as has been accomplished in any branch of animal breeding, has been the result of the application of only a few elementary and fundamental principles.

"Like Begets Like." Upon this principle as a foundation has rested the entire structure of standard-bred poultry breeding. Coupled together with another principle quite as elementary and possibly quite as fundamental, namely, that defects in one parent may be corrected by selecting for the parent of the opposite sex one that excels in the same character in which the first was defective, or one that fails in the same character as the first, but in the opposite direction, it is responsible for the progress made thus far.

This amounts to the following precepts: When two birds of the opposite sex having like characters are mated, the progeny will be like the parents with respect to these like characters; when the characters are unlike in the parents, these characters in the progeny will vary between the extremes exemplified by the parents, with a tendency for the greater number of the progeny to show a mean between these extremes. Together these simple rules account for the development of the different breeds, the creation of the new varieties of the same breed, and the improvement and development of those varieties already established.

Why Like Begets Like.—Of this precept no fundamental or scientific explanation can be offered. It is accepted as an axiom to a certain extent, though to the full extent it does not, perhaps, quite conform to modern theories. It is as fundamentally true in the breeding of all other forms of life as in the breeding of poultry. One of the first facts that any student of either plant or animal life observes is that every seed pro-

duces after its kind. The maxim "like begets like," then, is in a general way axiomatically proved. In animal breeding, the reproducting sex cannot fertilize itself, hence the proof of the maxim in its entirety cannot be expected. Breeders of poultry go this far, however, when male and female alike in certain particulars are mated together, that it is expected that the progeny will be like the parents in these particulars. For instance, when a male and female both have a comb with five points, a majority of the chicks from the pair would be expected to have five-pointed combs. What deviation did occur would be attributed to the ancestry of one or the other, or both, of the parents. Another example, specimens of the four-toed variety mated together produce four-toed varieties in all cases, while those of the five-toed variety when mated together produce five-toed chicks in nearly all cases. The same applies when two specimens of the opposite sex with reddish-bay eyes are mated together. Deviation would be accounted for by those of the ancestors that did not have red eyes.

To Offset Defects.—As an example of the second principle in general use by poultry breeders everywhere, that of correcting a defect by mating with specimens of the opposite sex that fail in the opposite direction, a male with a four-point comb, one point short of standard requirement, would be mated with a female with six points on her comb, and vice versa. If one of the mated pair had light eyes, it would be mated to a specimen with very dark reddish-bay or even with deep red eyes. A specimen of a breed which is required to have five toes that has but four would be considered so faulty that it would not be used as a breeder; it is a disqualified bird. (See page 15 for definition.) It is just as serious a matter when the specimen of the four-toed variety has five toes. It is discarded for the same reason.

In many cases this principle is modified to the extent of mating birds that are faulty in certain respects to the opposite sex that are as near perfection as it is possible to obtain. Faults may not be corrected as speedily in this way as by the other, but the method is more secure in the long run, because it is better that the fowls should inherit one excellent feature than two faults, even though they be of opposite tendencies.

Pedigrees.—Broadly speaking, these rules for mating have been very largely depended upon by breeders of standard-bred poultry, whether for exhibition or commercial purposes.

In practice, the pedigrees for many generations are also usually kept to help the breeder in applying these precepts, especially of the male side, as that is much more easily recorded than the female side, though when a line of heavy egg-producers are sought, the record of the dam becomes paramount and is invariably kept as it is, or should be, in the female line when double matings are used to produce exhibition specimens. Pedigrees are of great assistance, especially if the characteristics of each generation can be kept in mind, because the more generations in which a certain character appears the more fixed this character becomes, whether it is meritorious or defective.

Word descriptions, feathers and photographs of each sire and dam are the most common means of keeping the individuality of each generation in mind, some depending upon one or two ways, while others use all three. However it is done, it is essential, not only to know the pedigree for several generations, but it is equally essential to have an accurate recollection of each sire and dam for a number of generations, as it is the only way to know how the line is producing for this or for that desired quality.

Uniformity.—Uniformity is also desired, not only in each breeding pen, but in the ancestry as well. The more the chicks resemble the parents and the parents resemble their parents, the greater is the proportion of exhibition birds to be found in the flocks year after year, provided, of course, that the early ancestry was such. The desire on the part of breeders has been to produce uniformity in their flocks, and to do so, they have often bred from single pairs of birds, though the same results may be accomplished by keeping a record of both sire and dam, even though more than one female is allowed with the male; the offspring are then full brothers and sisters, or half-brothers and sisters, and can be recorded as such. By this method of mating closely related individuals, but few generations are required to establish most uniform flocks, the quality of which is, however, determined largely by the quality of the parent stock and the breeder's knowledge of this particular line of birds, and his skill in properly weighing the power of transmission of each individual.

Prepotency.—The power, which it is admitted some birds possess and some do not, to transmit their own characteristics to their offspring is called prepotency. In reality, it may be said to be the difference in the ability or power to transmit

that exists between the parents. We sometimes hear of an application differing slightly from the above, because there is occasionally an individual that is so very prepotent that one or more of its prominent characteristics are distinguishable in the progeny for several generations. In such instances, the individual that originally possessed and first transmitted this characteristic is often spoken of as being very prepotent.

The most generally accepted theory of explanation has been that by constantly selecting and breeding specimens with certain characteristics, these characteristics become fixed in the progeny, and after a certain number of generations, more or less, the aforementioned characteristics are transmitted in a remarkable degree by certain individuals.

The qualities transmitted vary. That is, a bird may be prepotent in certain characters and fail to transmit others. One bird might transmit its constitutional vigor, or the shape of comb only, while some birds impress their characteristics so generally and perfectly upon their offspring that we note a general resemblance to the parent of the same sex. It is not uncommon for an individual of wonderful constitution and vigor to throw several offspring bearing a striking resemblance to the parent in a single season.

The Value of Prepotency.—The value of prepotency can hardly be overestimated. When that quality is possessed by a female of high eggproducing capacity, its worth increases with each generation, according to the egg-producing capacity, and as the number of the descendants in the flocks increase.

Male One-Half the Flock.—And then, if the foregoing is true, how important an asset prepotency must be in any male which, because he exercises his share of influence upon each and every female with which he mates, is obviously one-half the flock. If the male is of unusual merit, or especially if he possesses more merit than the average of the females associated with him, and if through his ability to transmit his own characteristics he exercises such an influence upon the progeny that he becomes more than one-half of the flock, we can readily see the advantage of prepotency in such males.

Sex Control of Characters.—Breeders generally prize prepotency in a male. Ample explanation has been offered by pointing out how the male is one-half the flock. There is, too, the growing belief that the male is responsible for certain qualities, but opinions as to just which ones differ materially. Some think the male has most influence upon color and head

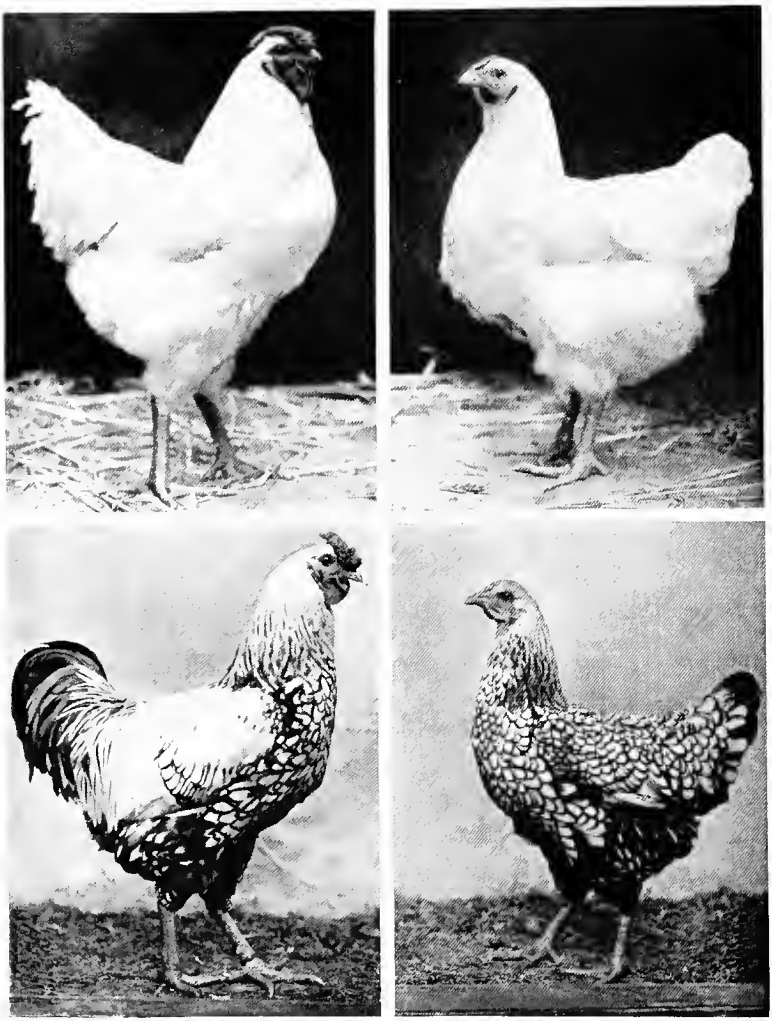
points, while the female controls the shape of body, etc. But it must be admitted that no tangible proof of these various opinions can be secured.

Constitutional Vigor.—That constitutional vigor is a vital factor in all branches of poultry husbandry will undoubtedly have been inferred from several of the foregoing passages. The necessity of that quality described by such terms as health, vigor, stamina, hardiness, ruggedness and several more, perhaps, is so generally understood and recognized that it requires little more than passing notice here.

It is also thoroughly understood that this quality is just as vitally essential in the yards of the most exclusive fancier, who rears but a few choice birds each season, as on the farm of the commercial breeder who raises his flock for the number of eggs it produces or the number of pounds of flesh; the first cannot perpetuate his flock to reincarnate the ideals of his dreams, the second cannot produce the eggs or the pounds of flesh without fowls of rugged constitutions, which must prevail in the stock. To maintain health in a flock and to hatch chicks that inherit a strong vital force, weak birds must not be admitted to the breeding yards. That is, to maintain constitutional vigor in your flock, select as breeders those birds that possess that essential quality.

The strongest constitutions may be undermined by injudicious feeding, by undue exposures, poor sanitation and poor management generally. These are topics taken up in a later chapter in this work. (A. C. S.)

PLATE A.



Winners at English shows, illustrating English Wyandotte type. Above, 1st White Wyandotte cockerel, Dairy Show, 1911, and 1st White Wyandotte pullet, Dairy Show, 1911. Below, 1st Silver Wyandotte cockerel, Dairy Show, 1911, and 1st Silver Wyandotte pullet, Dairy Show, 1911. See Plate B, page 135.

PART THREE

STANDARD-BRED WYANDOTTES.

SECTION I.

Chapter I: General Description of Wyandottes—All Varieties.
Chapter II: History of the Origin and Development of Wyandottes.
Chapter III: Changes in Type and Color Since 1884.
Chapter IV: Standard Requirements for Shape of All Varieties.
Chapter V: Common Defects and How to Overcome Them.

SECTION II. LACED WYANDOTTES.

Chapter I: Standard Requirements for Color of Silver Wyandottes and Explanation of Laced Color.
Chapter II: Breeding Silver Wyandottes.
Chapter III: Origin of Golden Wyandottes.
Chapter IV: Standard Requirements for Color of Golden Wyandottes.
Chapter V: Breeding Golden Wyandottes.

SECTION III. WHITE WYANDOTTES.

Chapter I: History of the Origin and Development.
Chapter II: Standard Requirements for Color.
Chapter III: Mating to Improve the Quality.

SECTION IV. BUFF WYANDOTTES.

Chapter I: History of the Origin and Development.
Chapter II: Standard Requirements for Color.
Chapter III: Successful Methods of Breeding.

SECTION V. PARTRIDGE WYANDOTTES.

Chapter I: History of the Origin and Development.
Chapter II: Standard Requirements for Color.
Chapter III: Single and Double Mating.

SECTION VI. SILVER PENCILED WYANDOTTES.

Chapter I: History of the Origin and Development.
Chapter II: Standard Requirements for Color.
Chapter III: The Mating Problems.

SECTION VII. COLUMBIAN WYANDOTTES.

Chapter I: History of the Origin and Development.
Chapter II: Standard Requirements for Color.
Chapter III: Breeding Problems Discussed.

SECTION VIII. BLACK WYANDOTTES.

Chapter I: History of the Origin and Development.
Chapter II: Standard Requirements for Color.
Chapter III: Methods of Breeding.

SECTION I.

CHAPTER I.

WYANDOTTES

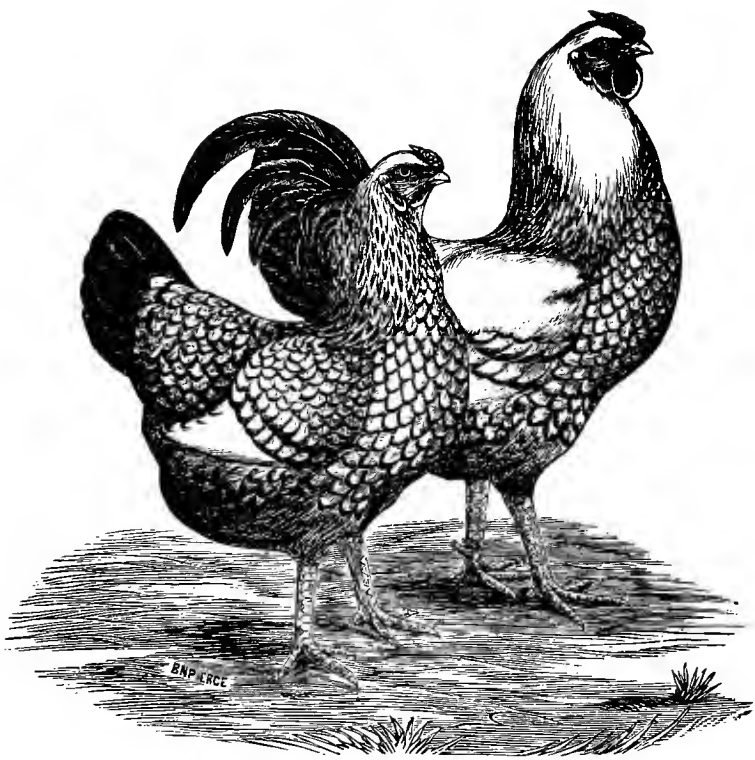
THE WYANDOTTES are of American origin and were known in their early history by several names. Each section of the country where they were found seems to have had a name that was given by the breeder who first introduced them. They were known as Sebrights, Mooneys, American Sebrights and by a number of names which their peculiar markings indicated. The name "Wyandotte" was not applied until they were admitted to the Standard in 1883. Just what breeds entered into the first Silver Wyandottes it is impossible to say. That Dark Brahmas and Silver Spangled Hamburgs were two of them has been proven, as a cross of these two breeds produces fowls that resemble them, but fail in shape and partly in color, showing that some other—[unknown] cross was added. They have, since their admission to the Standard, been one of the popular middle-weight breeds.

In shape the Wyandotte has a type peculiarly its own. It is emphatically a bird of curves. Breeders should strive to maintain the short, broad back and deep, round body; also, the curved, close-fitting comb which adds to the beauty of the specimen.

The wide range of color found in the eight varieties allows every admirer to indulge his fancy. Each variety has points of color difficult to obtain, but, when obtained, places a high valuation on the specimen. Whichever variety one may choose, he will find interesting color problems to solve. In the Whites, it will be how to secure pure white plumage and escape creaminess and brassiness: in the Blacks, how to obtain glossy greenish black, without the purple barring: in the Silvers, how to obtain silvery hackles and saddles free from brassiness; large, oval, white centers free from mossiness; and breast lacings free from white edgings: in the Goldens, how to get the correct shade of golden-bay, which in this variety supplants the white of the Silvers: in the Buffs, how to secure an even shade of rich, golden buff, and to avoid the out-

cropping of black and white: in the Partridge and Silver Penciled varieties, how to obtain the rich foundation color with distinct, clean-cut lacings in the necks and backs of males, with the fine triple penciling in females: in the Columbians, how to keep the surface of necks, backs and wing-bows of males free from brassiness and secure distinct lacings in necks, with black tails, laced coverts and black and white wings in males and females.

FIGURE 24.



AMERICAN SEBRIGHTS.

This illustration, executed by B. N. Pierce in 1874, was the first to present the completed type of the new breed which finally became known as the Wyandotte.

CHAPTER II.

HISTORY OF THE ORIGIN AND DEVELOPMENT.

THE AMERICAN Standard of Perfection defines a breed as follows: "A race of fowls, the members of which maintain distinctive shape characteristics that they possess in common. Breed is a broader term than variety. Breed includes varieties, as, for example, the Silver, White, Buff, Black, Partridge, Silver-Penciled and Columbian varieties of the Wyandotte breed."

The origin of the Silver Wyandotte, founder of the great and popular Wyandotte breed of today, is shrouded in mystery. When and where, and by whom it was first produced, no absolute, authentic records exist which will clear up the latter satisfactorily to close students of poultry history. In the vast amount of historical data at hand, relating to the origin and history of the breed, we fail to find anything of a convincing nature to warrant us in making an unqualified statement as to who the real originator was and how he made the breed. But after it appeared in several places in New York State and in New England, earnest poultry fanciers took hold of a promising new feathered creation and made a breed of it. Among the pioneer breeders were Fred A. Houdlette, Waltham, Mass., Geo. F. Hull, Lebanon, N. Y., and the late L. Whittaker, North Adams, Mich. They refined the crude Sebright Cochin, claimed to have been originated by the late John P. Ray, Honeoye, N .Y. (who later lived at Hemlock, N. Y.), into the American Sebright which became the Silver-LacedWyandotte of the Standard of Excellence in 1884.

In 1891 he wrote to J. Y. Bicknell, Buffalo, N. Y., a prominent judge and experienced breeder of Standard-bred poultry, for information relating to the origin of Silver Wyandottes, and received the following reply:

"The same old theory regarding the origin of Wyandottes as has been going the rounds for several years, viz., that they were produced by a cross between a Dark Brahma and a Silver Spangled Hamburg. Possibly this is the case, but all efforts to trace their origin have been wholly fruitless. All the evidence we have is circumstantial; all guesswork. Repeated efforts have been made to find the fountain head, but all in vain.

"As long ago as the year 1868 a neighbor of mine residing in Oneida

county, where I then lived, bred them, and at that time I made an effort to trace their origin, and every line that I followed became obliterated before I found its source. The last man always said: 'I don't know anything about it.' And this is the experience of EVERY ONE of the many who have tried to solve the problem.

"I have spent considerable time on this question, not only in years long past, but recently, and it is safe to say that this supposed origin of the Wyandotte has not a shadow of foundation in fact. No one knows anything about it except what he sees in the makeup of the birds."

As Mr. Bicknell lived in the locality where the Wyandotte first came into this world, his statement is not calculated to lift the veil of mystery surrounding its origin, albeit his reference to the Dark Brahma-Silver Spangled Hamburg cross is significant, as subsequent reversions to ancestral blood lines in the evolution of this new race of fowls proved.

We were of the opinion, as far back as 1884, that the Brahma-Hamburg blood was used by the originator of the American Sebright, which later became known as the Wyandotte. This opinion was based on the fact of reversions to one or the other of the above mentioned varieties taking place in one of the eastern strains (Silver Laced Wyandottes which we bred at Una Farm, Washingtonville, N. Y., at that time and the five years following), the large Hamburg rose comb and tendency to spangling on the breast feathers making their appearance in the one case, and the narrow, stubby comb, duckwing and striped-saddle markings of the Dark Brahma males and mossy or penciled feathers of the females appearing in the other.

Presuming then that the original Wyandotte is the result of the blending of the blood of the Dark Brahma with that of the Silver Spangled Hamburg, the blood of each being strong, the amalgamation produced the inherited qualities of both, which cropped out in generations following, from time to time, causing variation in type plumage and combs. But the intermingling of the blood of these two old established varieties of the noted Brahma and Hamburg breeds, produced from the start a remarkable utility breed, one that proved an extraordinary layer of light, brown-tinted eggs of most attractive appearance and marketable size; while the plump, meaty carcass appealed to the dealers and satisfied the palates of the consumers.

The American Sebright.—The American Sebright was the forbear of the Silver Wyandotte, one point at least which early writers of Wyandotte history agreed upon. Poultry au-

thorities of the present day seem to be of the same opinion. The Sebright Cochin, first bred by John P. Ray at Hemlock, New York, in or about 1868, became known as the American Sebright shortly after that date, and Geo. F. Hull of New Lebanon, New York, in 1886 stated that he obtained his first Wyandottes (then called American Sebrights) in 1872 from an aunt residing in Nassau, New York, who discovered them at Sandlake, New York, but no one seemed to know where they originally came from. That painstaking and intelligent poultry writer, Joseph Wallace, made careful researches into the early history of the Wyandottes, shortly after their admission to the Standard of Excellence of 1884 and arrived at the following conclusions regarding their origin:

"There is evidence of a first cross from a Sebright Bantam and a Buff Cochin hen or Yellow Chittagong, as some called the Buff as early as 1868 or 1869. At this early date at least three persons were breeding this cross, or one of a similar product, as we learn from the correspondence between a Mr. John P. Ray of Hemlock, New York, and a Reverend A. S. Baker of Honeoye Falls. Single and rose combs appeared from this cross, those with rose combs being generally better marked in plumage and more valuable among their admirers. Much has been conjectured about the object of the originator, some asserting that a Laced Cochin was in view, while others believed that a medium-sized fowl, somewhat like the Plymouth Rock, was the ultimate object. Weighing the probabilities of each view, I am led to think that the originator intended a breed to take the place of Brahmas, Cochins and Javas for fancy breeding and table use, as the plumage promised to be unique and attractive, and the size more desirable than that of the Asiatics, though called Sebright Cochins.

"Some of Mr. Ray's early stock passed into the hands of Messrs. McMillan, Dudley, Whittaker and Hull. Each of these fanciers made some change or improvement in his fowls. Some bred rose comb and others single comb birds, and not until 1876 did the pea comb become a feature of the new breed. Previous to this another cross was made between the Silver Spangled Hamburg and Buff Cochin. Seeing that the plumage was too light, the Brahma in many ways was found to be an excellent element to infuse into the new cross American Sebright (Sebright-Cochin). L. J. Payne of Binghamton, New York, was a breeder of this new cross and advertised his fowls in the "Poultry World" in 1875. L. Whittaker of North Adams, Michigan, also advertised Sebright Cochins in this paper at the same time, the following being a reproduction of his ad:

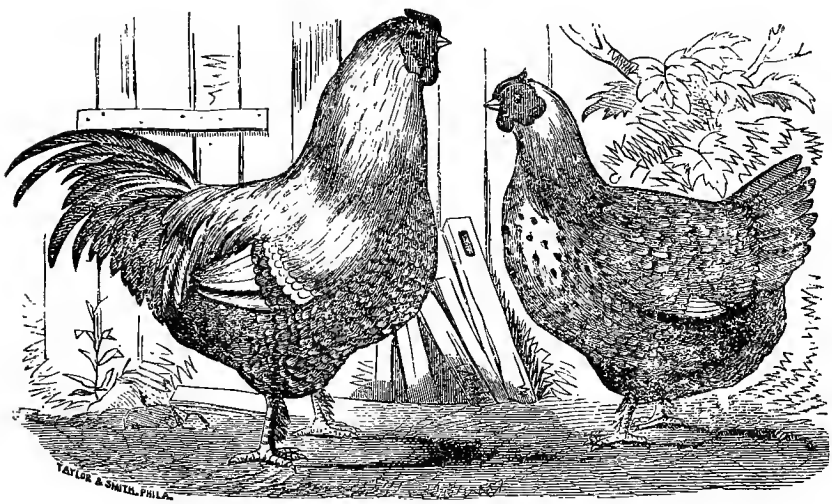
SEBRIGHT COCHINS
P. Cochins. Brahmas and Bronze Turkeys.
L. WHITTAKER, No. Adams, Mich.

"The breed was presented to the American Poultry Association for admission to the Standard, while the Association was in session at Buffalo in 1876. The Association recognized the promising qualities of the breed,

but objected to the name 'American Sebrights' as suggesive of Bantam, besides several new features were engrafted on the breed in the way of comb. In this unsettled state the Association appointed Mr. Payne chairman of a committee to settle on comb and prepare a standard. The Committee failed to report, as they could not agree on a name nor the form of comb, so the breed had to wait until 1883."

Sebright Cochin Fowls.—The American Rural Home, published at Rochester, N. Y., in its January 4, 1873, issue printed an illustration of a pair of Sebright Cochin fowls (see Figure 25) accompanied with the following descriptive matter:

FIGURE 25.



SEBRIGHT COCHINS.

The male and female illustrated above present the earliest type of the Wyandottes, or Sebright Cochins.

"Some time since we gave a notice of the Sebright Cochins, a new variety of fowls which are attracting considerable attention among breeders in central New York, so much so that we have had drawn and engraved, expressly for The Rural Home, a fine specimen of the breed, accompanying which we give the experience of John P. Ray, who has bred them for the past three seasons. We have a fine trio of chicks that we reared from eggs sent us by Mr. Ray during the past season; they were perfectly hardy and feather-up much earlier than the Brahmas. Mr. R. Writes as follows:

"'We now have been breeding the Sebright Cochins three seasons, and our experience with them should enable us to speak understandingly of their merits as a variety. We shall make our estimate of them as a fowl for general purposes, which should be hardy, good layers, of large size, and early maturity, presenting a beautiful and attractive appearance, suited to the wants of the farmers and amateur breeders. With us these fowls have been entirely hardy and free from disease. As egg producers, for both winter and summer, they are not excelled by any other variety. They are not non-sitters, neither have they the sitting propensity like the Brahma. They are of medium size as compared with the Asiatic varieties. The cocks weight from eight to ten pounds; hens from six to seven pounds. They feather up at an early age and present a plump and hardy appearance from the time they are hatched until full grown. The color of the cock is similar to a dark Brahama, spangled with white on the breast and thighs. The hens are dark brown or black, spangled with white; less yellow and generally slightly feathered. They should have double or rose combs, yet sometimes a single comb appears among them; these we shall weed out as fast as possible. Our pullets, hatched in May, commenced laying in November, with but ordinary care and treatment. As a table and market fowl, we think they have no superior, and when they become better known will prove a very popular variety.'"

After a lapse of over thirty years, John P. Ray contributed to the New York Tribune Farmer for March 3, 1904, a lengthy article, which in substance was a reply to statements made in a bulletin on American breeds of poultry, written by T. F. McGrew, and printed in the Eighteenth Annual Report of the Bureau of Animal Industry (Department of Agriculture, Washington, D. C. 1901) from which we quote below extracts which purport to give the true origin of the Wyandotte breed. Mr. Ray states:

John P. Ray's History of the Origin.—"In the chapter devoted to the Wyandotte breed, the author has fallen into gross errors that are misleading to the poultry men and the public in general. On page 543 I quote: First, 'A Mr. John P. Ray of Hemlock, N. Y., originated a rose comb fowl by a cross of a Sebright Bantam male and a yellow Chittagong, which he named Sebright Cochin.' In reference to this statement, let me say that I never made such a cross; I never owned a Sebright Bantam male, and as to the yellow Chittagong, I never saw the fowl. Neither did I name my new breed of fowls Sebright Cochins. That honor belongs to William M. Lewis, who compiled the 'People's Practical Poultry Book' and was for some years poultry editor of 'The American Rural Home.'

"Second—'Others who became interested (among whom were the Rev. A. S. Baker and Mr. Benson) produced the same kind of fowl. These three persons became so interested with their newly formed fowls that one of them had them illustrated in the agricultural press during 1872.' In regard to this statement and in explanation of the reason the names of Messrs. Baker and Benson, were exploited in connection with this matter, let me say that they were Methodist clergymen. Soon after

I started out to develop this new breed, I wanted a Silver Sebright male bird to cross on my new blood line, and wrote one of these gentlemen making inquiry for such a bird. He replied on the same sheet on which I had written him, and referred me to the other. Neither of these gentlemen could furnish me with a bird. This letter was preserved by mere accident, and was not seen for several years. Its only value consisted in showing the early date in which I was making an effort to create a new breed. These men kept a few Silver Sebrights (not bantams, but a fowl as large as the Wyandotte), while mine carried a Chittagong cross (black and yellow fowl). I never heard of these men again. I do not know that six months after that they had a chick or that any bird ever owned by them figures in the makeup of the Wyandotte. Does Mr. McGrew? At this period the Silver Sebright was being kept about Sandy Hill, Washington County, N. Y., and by the late H. M. Doubleday of Victor, N. Y., and others in his vicinity, and William R. Pitts, Honeoye, N. Y. Still, we have no knowledge that any of this blood enters into the Wyandotte, save that from Mr. Doubleday's flock.

"Third—'Both Silver Spangled Hamburgs and Dark Brahmas were crossed upon the Sebright Cochin. Silver Spangled Hamburgs and Buff Cochins were bred together, and the best of all these crosses were merged into what were called Eurekas; also Excelsiors, Ambrights, American Sebrights, Columbias, etc.' The foregoing is substantially a revamp of the Felch theory put forth several years ago, and, in my judgment, is a flight of the imagination pure and simple."

Mr. Ray further states that no such crosses as named were made by breeders in this section who had birds coming from his flock; and that a sufficient number of fowls and eggs were shipped north, south, east and west to give the breed wide dispersal, while others at an early date, like the Rev. Forsythe, George F. Hull, Barnard Brothers and the late L.Whittaker, North Adams, Michigan, were not idle. "The last named gentleman," remarks Mr. Ray, "was a very successful breeder and established a strain of great value that was widely known as the Whittaker strain and some breeders claim to have the strain today, while not a few give him credit for originatng the breed."

Mr. Ray publishes a number of letters he received from Mr. Whittaker in 1873, 1874 and 1875, which clearly indicate the close relationship of the stock bred by both, and if the credit for originating the Sebright Cochins, or American Sebrights, belongs to John P. Ray, the credit for evolving the true Wyandotte must be given to L. Whittaker.

True Origin of Silver Wyandottes.—Mr. Ray further remarks that if a Dark Brahma-Hamburg cross was made in the early 70's, he would have found some vulture hocks on the one hand and some blue legs on the other. He claims he never saw evidence of either blood in the Silver Wyandotte or its

ancestors. The true origin of the Wyandotte fowl is given by Mr. Ray as follows:

'I will now give the true origin of the Silver Wyandotte breed. In the spring of 1870 we obtained a setting of eggs from the late Edward Bronson of East Bloomfield, N. Y., later of Abilene, Kans. His fowls were the first cross between the Silver Sebrights and the black and yellow Chittagong. The following fall we purchased Mr. Bronson's best pair—our selecttion of his breeding birds. This blood we bred together for two years. Our next move was to select a pair, our choice from the flock of pure Silver Sebrights owned by my friend of many years, the late H. M. Doubleday, who at that time lived near Dexter, N. Y. Mr. Doubleday is entitled to the credit of bringing the Silver Sebrights to Western New York. With this new cross injected into my blood line, the birds carried three-fourths of the Silver Sebright blood and one-fourth of the Chittagong, and I do not know of any other blood being crossed with the breed down to date."

The Silver Sebrights referred to by Mr. Ray as coming from H. M. Doubleday were neither bantams nor any other larger breed of fowl recognized by that name, as no early illustrations and historical data relating to this mythical breed are in existence, the only meager knowledge of Silver Sebrights (?) available being found in the following letter of Mr. Doubleday:

"Padelfords, N. Y., September 23, 1897.

Mr. John P. Ray, Hemlock, New York.

Dear Sir: Answering your inquiries, will say that I removed from Sandy Hill, N. Y., to Farmington in the year 1866. I brought a trio of Silver Sebrights with me. These, I believe, were the original and only ones brought to Western New York. These birds I purchased of a man by the name of Van Schork, who got his stock in the town of Easton, N. Y. This breed of fowls I believe to have been a foreign or imported bird. They were similar in characteristics to the Silver Wyandottes of today, except in color. They were chocolate colored, where the Wyandotte is black. They were chiefly rose combed, though occasionally a single comb appeared. Some were slightly feathered on the leg. The cocks had the wing bars of the Wyandottes of today, of which you know better than any other man that they constituted three-quarters of the original blood of which the Wyandotte was made. I have no knowledge of their having Dark Brahma or Hamburg cross, and do not believe that they had such crosses, as I never saw a blue leg or vulture hock among them, which must have appeared had they possessed these bloods.

I recall selling you a pair of chicks (your selection) in the fall of 1872. I was well acquainted with the Chittagongs, which were essentially the Golden Wyandottes of today, and which constituted the cross of which you made the Wyandotte. Hoping that some day the public will accredit you with the honor which is due you of originating the Wyandotte breed, I am,

Sincerely,

H. M. DOUBLEDAY."

Mr. Ray evidently agrees with Mr. Doubleday that the Chittagongs were essentially the Golden Wyandottes of today and states: "These birds were owned in considerable numbers during the 60's in the towns of Victor, East Bloomfield and Canandaigua, Ontario County, N. Y., by Peter H. McMillan, John M. Norton, Chilotte Collins, a Mr. Cooley and Mr. Brace, now of Victor, the world-famed Single Combed Brown Leghorn breeder. My first birds were Silver-laced and Gold-laced, clean-legged and feather-legged, single-combed and rose- combed. I selected for breeding stock the silver-laced, rose-combed ones, and for some little time those with feathers on the leg; these, as a rule, were the best birds as to shape and color. Later we bred for clean legs altogether. What higher compliment can be paid to a breed than to have all its sports and cross-bred birds that have refined into a type take the name of the original breed with color as a suffix. We now have the Silver and Golden, White and Black, Pencilled and Partridge, Buff Wyandottes, with the Dominique Wyandotte yet to bob up."

Mr. Ray's statement that the Wyandotte originated from the Sebright Cochin bred by him, is corroborated by L. Whittaker of North Adams, Michigan, who, in 1886, wrote to the Rev. Chas. L. Ayer as follows:

"Wyandottes in '72 were known as Sebright Cochins. I first found them at Honeoye, N. Y. I thought at that time I could see all their future popularity and the result has proved my prediction true. In January, '77, I gave them the name of American Sebrights. As to their origin I made a strict search in the years '72, '73 and '74, and each inquiry brought a different theory and on following up the matter I would find them all merely guesses."

We should add to the list of guesses, the statement made by Mr. Doubleday that the Chittagongs were essentially the Golden Wyandottes of today. That they may have resembled the latter variety is not at all unlikely, as the Chittagongs descended from the Black Red Malay breed.

Whittaker Strain of Wyandottes.—Franklane L. Sewell, who was intimately acquainted with Mr. Whittaker, visited the latter about a year before his death, which occurred in 1911, for the purpose of ascertaining all the facts relating to the Whittaker strain of Silver Wyandottes, which owes its origin to the Sebright Cochins. From Mr. Sewell's interview with Mr. Whittaker we glean the following authentic in-

formation relating to the originator and the true Silver Wyandotte.

Leonard Whittaker was a farmer, who in 1870 was interested in blooded fowls and who had great confidence in the future of the Standard-bred poultry industry. At the time he first heard of Sebright Cochins, as Wyandottes were then known, he was breeding Light and Dark Brahmas, Buff and Partridge Cochins, Houdans and White Leghorns. His cousin, B. H. Hunn, whose home was at North Adams, Michigan, returning from a visit to Honeoye, N. Y., brought back to Mr. Whittaker a description of Sebright Cochins, which greatly aroused the curiosity of the latter and he became greatly interested in them because "they were such plump, nicely-rounded fowls", as Mr. Hunn expressed it. The result was that Mr. Whittaker corresponded with John P. Ray, who had these birds at Honeoye, and eggs at first, followed by breeding stock, were obtained by him.

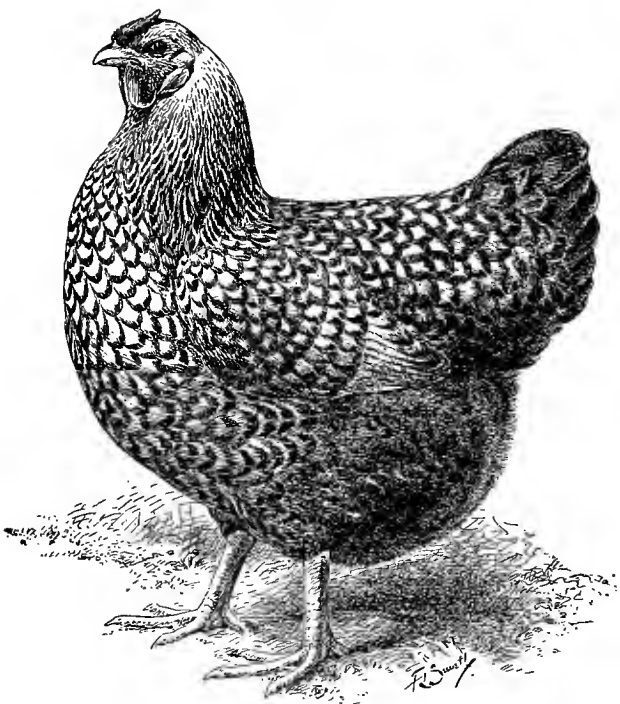
Mr. Ray seemed bent on producing first what he termed "Sebright Cochins with feathered legs", so that Mr. Whittaker readily purchased the bare-shanked ones. During the second year (1874) Mr. Whittaker was rewarded in his breeding by producing a fine female, which he always spoke of as "The Big Hen" (Fig. 26). She proved to be a breeder of rare value, being "a very clear-colored, nicely laced bird, with bright, open centers that were wonderfully free from mossing and her hackles were striped with Silvery-White edging", as Mr. Whittaker described her color marking. But the shape of this hen in her pullet year was not so well impressed upon his memory as the type she developed in later years. This he described as rounded, deep, almost level on her back and underneath, rather Cochiny and rounded out. She seemed best of all of his early birds to combine the large, rounded form inherited from the Red Chittagong cross made by John P. Ray, with the color and lacing of the American Sebrights of the Doubleday stock and which Mr. Ray affirms were not bantams, but almost equalling the modern Wyandotte in size.

Mr. Whittaker finally secured all the clean-legged birds Mr. Ray had to sell and often referred to them as the "slimmer type" and claimed they had the best open-lacing and striped-necks. He valued the large rounded form for its grand appearance, but he stated that he had to select some of the "slimmer type" birds to get rid of the "shawl-neck". The shawl-necked birds had the rounder, plumper-form and rose combs.

The "slimmer type" were in all probability nearer the Sebright type of birds that Mr. Ray obtained from Mr. Doubleday and with which he crossed the black and red Chittagongs. The latter increased the size and rounded exterior, but also brought into the plumage the mixed-up coloring of neck, back and saddle, producing what Mr. Whittaker termed the "shawl-neck", meaning a hackle filled with dark, smoky colored feathers.

From the appearance of the Sebright and the way the "slimmer type" for several generations reverted back, even when re-crossed, he was assured that the Sebrights came of a

FIGURE 26.



WHITTAKER'S "BIG HEN."

An ideal illustration drawn by F. L. Sewell according to Mr. Whittaker's description of each section after a lapse of thirty years.

stock that for some time had been quite well established. When asked to describe some of the principal defects or characteristics which he did not like in the early American Sebrights, afterward Wyandottes, Mr. Whittaker replied: "Single combs, white in ear-lobes, shawl-necks and smoky shanks". Besides the single combs, a few combs developed without spikes at rear and sometimes were low in the center. The strawberry-shaped comb appeared on a few males with longer necks and longer legs than ordinary.

A few of the cockerels, especially those that developed the longest tails, had considerable white at the root, noticeable on the upper web of the main sickles. Mr. Whittaker did not experience much difficulty with frosting on the black lacing until he made some crosses with New England stock. In the 80's he exchanged with a party at Seneca Falls, N. Y., and mated a male of this new stock to females of his own strain, but the chicks resulting showed reversions to Dark Brahma blood, and were very mossy. This was the first time such a reversion to the Dark Brahma had been seen by Mr. Whittaker.

The wing-bar color of the male; as described in the first Standard for Wyandottes was unknown in the Whittaker line of blood, that strain being laced on the wing coverts; white on upper edge of tail of males Mr. Whittaker considered a defect difficult to breed out and shawl-neck he described as: "The neck of male bird (on which it was most conspicuous) was silvery-white down to the fullness (meaning the arch, or full portion of the neck), then it was a kind of mixed, smoky moss of dark color."

The "Big Hen" had the first clear-striped neck that he produced on a bird of her type and proved of great value; for she lived nine or ten years and was no doubt a potent factor in developing the popular type for the strain, and was the mother of a goodly number of the best in the foundation stock of Wyandottes.

Refused Admission to Standard in 1877.—Mr. Whittaker failed in the attempt to have his American Sebrights admitted to the Standard of Excellence in 1877, for reasons set forth in the following statement by I. K. Felch, who was present at the American Poultry Association meeting of that year:

"Whittaker in 1877 offered his birds to the American Poultry Association as American Sebrights. At the same meeting the Kidder faction

wanted them accepted with peacombs and feathered legs as Eurekas. The American Poultry Association refused, and recommended that the breeders come together and agree on some one thing. * * * * There is no disputing the fact that Ray, Baker and Rev. Benson were breeding them as Sebright Cochins, that the first cross was a large Sebright Bantam cock with a Buff Cochin hen; that this was subsequently top-crossed by Hamburgs; that Kidder did introduce Dark Brahma blood and then the Silver-Spangled Hamburg male. All this came out at that Buffalo meeting in 1877. I have Ray's letters dated 1871, with an endorsement on the back in 1886 by A. S. Baker, that show the first cross was as early as 1864 to 1866. Ray was one of two or three breeding these birds in 1867, but the fact that he was hunting for crosses to breed to his, shows that there were others at it, too. Between 1877 and 1883, there was another top-cross and the blood of the French Breda and the Hamburg was added—also light colored specimens of Dark Brahmas. Ray, Baker and Benson were the starters, but these other crosses were added before they went in to the Standard in 1883."

The "Silver Sebrights" (?) mentioned by Mr. Doubleday were referred to by him as "a foreign or imported bird" and the supposition is that the Breda are also known to have been such, several colors being found aomng them, such as black, white and silver-laced. We are, however, most inclined to put our faith in the Lancashire Mooney" as the "imported bird" mentioned by Mr. Doubleday, for we believe this old English breed to have played an important part in the history of the Wyandotte fowl. The pronounced Hamburg-type of rose comb of the Mooney not infrequently made its appearance in both Wyandotte males and females, long after they were made a Standard breed. One of the finest cockerels we owed in the early 80's sported a rose comb which would have been considered an ideal one for a Hamburg male, but a misfit on a Wyandotte.

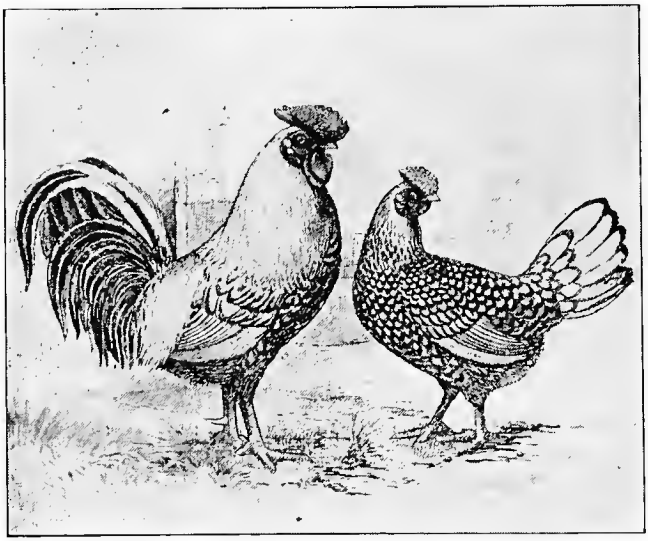
Lancashire Mooneys.—The illustration depicts a pair of Lancashire Mooneys. This is a reproduction from an old English print, executed by W and H. Ward. The wing-bars of the male bird in this picture fit the description given by Mr. Doubleday when he wrote to Mr. Ray in 1898: "The cocks had the wing-bars of the Wyandotte of today".

Franklane L. Sewell, in referring to the illustration of Lancashire Mooneys in 1907, remarked: "Regarding the cut of Spangled Hamburgs in 1860, they furnish a possible link in the Wyandotte history. I feel quite certain that in 1860 there were Hamburgs in England with spangles; for I have talked in England with old fanciers from Yorkshire and Lancashire who have shown at exhibitions for forty years or more and they speak of them as Mooneys and tell of the large "moons"

(or spangles). However, this picture, represented to have been made from an illustration by W. and H. Ward is really a drawing by J. W. Ludlow, is to be the most reasonable solution of the earliest type that could have helped best to make the local Wyandotte with the Chittagong to increase size and add fluff, and supply a more level-carried body—deeper in front, and shorter in tail plumage, besides broadening the whole structure."

That such an eminent authority as J. W. Ludlow, one of England's greatest poultry artists and judges, believes in the Hamburg-Dark Brahma origin of the Wyandotte, the following explanatory letter (1908), regarding the old print of Mooneys referred to by Mr. Sewell, will corroborate:

FIGURE 27.



LANCASHIRE "MOONEYS."

From an old wood-cut print, redrawn by the English artist, J. W. Ludlow.

"I remember well when a large proportion of Silver and Golden Spangled Hamburgs were of that type. Large and coarse in shape, more or less red in lobe, heavy in comb and laced in feather, others perhaps with mere half moons, or simple tips. (This would be 50 or 60 years ago.)

"The print I recognize as a reduction of a copy I made years ago, published side by side with a drawing of mine, of up-to-date spangles, and issued, I think, in 'The Stockkeeper' or 'Fanciers' Gazette' (not sure which). I did them to show the progress made in the evolution of the proper moon spangling.

"I did not know either of the Wards personally, but I knew a nephew. But I did know the engraver who etched the steel plate from which the original prints were taken. His name was Homer, an expert engraver. I, however, borrowed the original set of Hamburg prints from a local newspaper editor's son. Anyhow, I can say of my own knowledge that the representations are true and reliable and fairly depict the Hamburgs of fifty years ago. (I am 67.)

"I cannot tell where any of the old laced pattern are now to be had. No, the majority are now heavily (too heavily, I think) spangled, even to overlapping moons.

"In the early days, many single combs were bred, but were never liked. They came simply as occasional sports, as such appear in most breeds, until persistent and united effort has led to their practical extinction in Great Britain, at least, and yet even now and again comes a single combed chick, however refined the strain from which it springs.

"I take it that your chief object is to ascertain the relationship of the old pattern laced Hamburg to the present Wyandotte. There is no doubt in my mind as to the origin of each variety of Wyandottes. Suffice to say here that the Silver-laced Wyandotte comes from a judicious amalgamation of these very laced Silver Spangled Hamburgs crossed with what we (here) call Dark Brahmas. I have worked the problem out fully and can account as fully for this theory, together with a few indisputable facts which only those who study both British and American Standards can fully comprehend and which only ample space would suffice to explain.

"America rightly claims the making of the Wyandotte, but I am as positive of the elements of each sort which have been used as though I had been the patentee and so soon as I was permitted to see what had been done in Silvers and Goldens I saw equally clear further possibilities in Wyandottes, still easier of production. Americans have largely imported from Great Britain. In the early days they did not always get our best, no, but they did at least get just those very selections which have enabled them under judicious usage to evolve and give us old time fanciers many useful breeds and many good lessons in amalgamation of breeds which I have from time to time appreciated and which all reasoning fanciers are bound to recognize."

From the foregoing testimony and suppositions of experienced poultry breeders and authorities, it is evident, after sifting out the speculative theories advanced by some writers, that the ancestral blood of the Wyandotte fowl traced back to one distinct breed—the Hamburg—and to one subbreed or variety—the Dark Brahma.

Chittagongs or Dark Brahmas.—Regarding the early Dark Brahmas, they were called Gray Chittagongs as far back as 1874. W. A. Fuller, Fultonsville, N. Y., one of the oldest breeders of Dark Brahmas in the United States, in reply to our

request for information relating to the Chittagongs, on August 14, 1912, writes:

"The first Dark Brahmas came to this country in 1846, on a ship that sailed from a port on the Brahma Pootra River, India. They were purchased by Mr. Nelson H. Chamberlain, New Britain, Conn. The first brood came out in 1847. Mr. Virgil Cornish bought nearly all of them and exhibited some of this lot first at Boston in 1850, under the name of Chittagongs, as they looked something like the Chittagongs then bred in this country. But Mr. Cornish, who attended the exhibition, claimed that his Chittagongs were different and should have a distinctive name. A committee was appointed, which decided to give the Cornish birds the name of Brahma Pootra, in honor of the great river of India from which they originally came. Early poultry writers, however, proclaimed the Brahma to be a mongrel of his own creation and the Chittagongs a breed made up of a cross of the Malay and Dorking. In my opinion, if the Dark Brahmas are a made-up breed of crosses, they would throw sports, and in all that I have bred I never had one."

George P. Burnham, of "Hen Fever" fame, however, disputes the claim that Dark Brahmas came to this country from India, and insists that he bred them as Gray Shanghaes from his imported stock, which came from China instead of India.

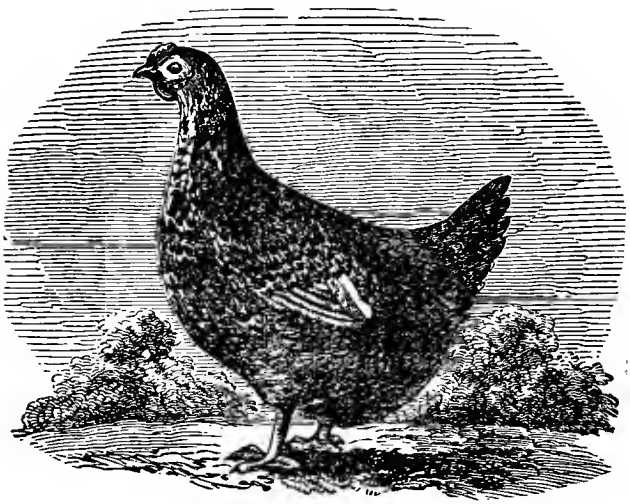
J. Macomber, Newton Center, Mass., in "The Poultry World," September, 1874, states that when he resided at Jamaica Plain several years before, he received from Philadelphia a pair of what were called Gray Chittagongs, the cock weighing thirteen and one-half pounds. So evidently the Gray Chittagong, Gray Shanghai, Brahma Pootra and Dark Brahma were closely allied in type and color, although the original Chittagong itself differed in color and shape besides having clean shanks and feet. Doyle in his "Illustrated Book of Poultry" (1850) refers to Chittagongs as "usually brown or yellow, and sometimes almost black"; but Bennett's "American Poulterer's Companion" (New York, 1856) is authority for the statement: "The Chittagongs are strongly suspected to be a cross between the Malay and Dorking. They are usually penciled or spangled in plumage, but they have been occasionally seen with a mixture of yellow or brown upon the feathers."

In Bennett's "Poultry Book" (Boston, 1850), a detailed account of this ancient breed or variety may be found, also an illustration of a hen sold by a Philadelphia to a Boston Fancier about that time. The illustration (Fig. 28) is referred to as "The portrait is presented here on account of the peculiar merits of this particular specimen. She is of the Brown Chittagong variety, her plumage being of a yellowish-brown, with

the feathers tipped with black, producing a spotted appearance. She has five toes on each foot. This individual is undoubtedly the largest hen in America, weighing thirteen pounds and four ounces."

The origin of the Brahma was the subject of a long and bitter controversy about the middle of the last century, many theories being advanced only to be exploded by others. But George P. Burnham, who first introduced Light Brahmas, proved conclusively that the blood of these Brahmas was a composite of Shanghai (or Cochin) and Chittagong.

FIGURE 28.



"CHITTAGONG" HEN.

The above illustration is reproduced from an old wood-cut printed in 1850. This hen weighed thirteen pounds.

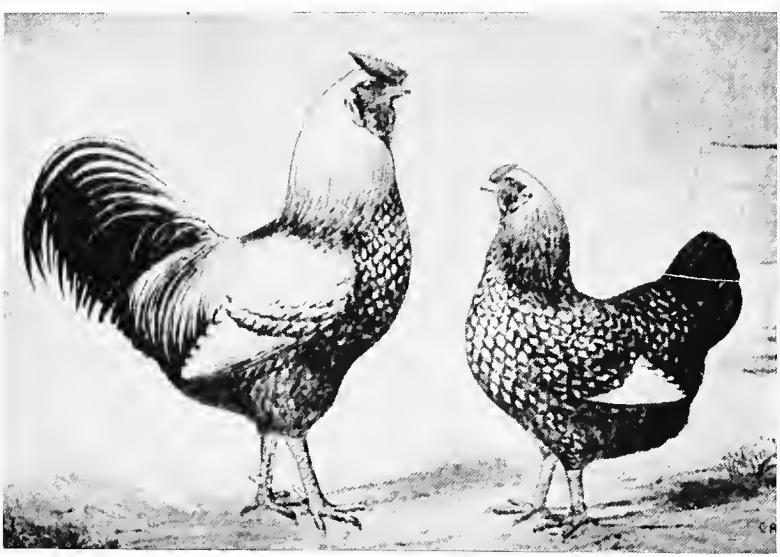
The strong blood of the Malay in the Chittagong crops out in the sub-breeds of the latter, the overhanging or beetle brow and pea comb of the Brahma being notable examples, while in some of the earlier strains of Wyandottes the tendency toward a Brahmaneque head and pea comb was noticeable not infrequently.

The Dorking blood in the Chittagong is evidently less potent than that of the Malay, as no reversion to Dorking char-

acteristics has been found that we are aware of, certainly not the fifth toe which is a distinguishing feature of the Dorking breed.

Although there will always exist some doubt as to absolute reliability of the claims made by early breeders of American Sebrights or Sebright Cochins, regarding the component parts which made up the new breed, we are reasonably safe in tracing back the blood lines of the following four distinct breeds, viz., Hamburgs, Malays, Cochins or Shanghaes, and Dorkings. (J. H. D.)

FIGURE 29.



THE HOUDLETTE PICTURE.

This illustration, reproduced from an early (1887) drawing of Laced Wyandottes, presents white-laced sickles on the male. This defect was quite common in the early Wyandottes. In the male and female the shawl-neck tendency, described by Mr. Whittaker, is displayed.

CHAPTER III.

CHANGES IN TYPE AND COLOR FROM 1884 FORWARD.

FOLLOWING the advent of the American Sebright in 1874 and 1875, considerable rivalry sprang up between the breeders of the older and newer type, which was intensified by the appearance of a new production, the result of crossing the American Sebright with a Hamburg-Dark Brahma cross and which was brought out under the name "Eureka," one of the many bewildering names suggested by various breeders for one and the same breed which was advertised as Sebright Cochins, American Sebrights, Excelsiors, Ambrights and Hambletonians.

But to F. A. Houdlette, Waltham, Massachusetts, belongs the honor of naming the new breed, and credit must be given to him as one of the originators, for as A. A. Howland of Worcester, Massachusetts, remarked in "The Poultry World" thirty years ago:

"To his earnest and intelligent labors, the Silver Wyandotte was largely indebted for its attractive qualities that finally led to its admission to the American Standard of Excellence at the meeting of the American Poultry Association held at Worcester, Massachusetts, February 1 and 2, 1883."

The name "Wyandotte" was suggested to Mr. Houdlette by the ship "Wyandotte," owned by his father, and not (as has generally been believed) given in honor of the American tribe of Wyandotte Indians.

First Exhibit of Wyandottes.—Silver Wyandottes were first exhibited as a Standard breed in New York City in 1884, the "Rural New Yorker" printing the first report of the new breed as follows:

"The first appearance of the variety as Standard specimens was at the exhibition of the Fanciers' Club of New York City last month, when the large display, new to the showroom, in the black and white velvety plumage attracted great attention. The perfect bird was not there, the best adults, male and female, scoring respectively 88½ and 82½; the first prize winning chicks reaching 95½ and 93½. The awards went to G. D. Millington, North Bennington, Vermont, first and second for breeding

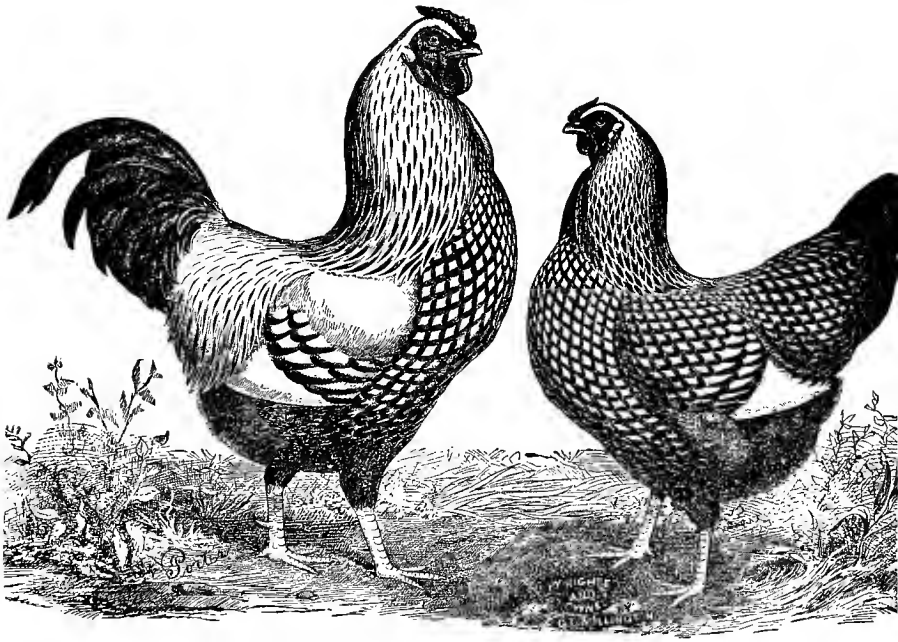
pens, first for fowls; first and second for chicks to H. D. Macumber, Truxton, N. Y.; second for fowls, third for chicks, to Kate G. Ash, Lima, Pa. Both breeding pens were sold before the show closed, the first going to one of the Harper Brothers, the second to Philip Timson."

Franklane L. Sewell, who was the first artist in this country to delineate and portray the Silver Wyandotte correctly, in a letter dated October 9, 1912, describes the first Wyandotte he saw in the West as follows:

"The first Wyandottes I saw were at the house yards of Dr. Edward B. Weston of Highland Park, Ill., in the spring of 1884. This was just following their admission by the American Poultry Association to the Standard of Excellence.

"Dr. Weston, since 1872, has been breeding several leading races of highest class, standard-bred fowls of the very best strains. The doctor always satisfied his ambition to have only the best, and with Leghorns,

FIGURE 30.



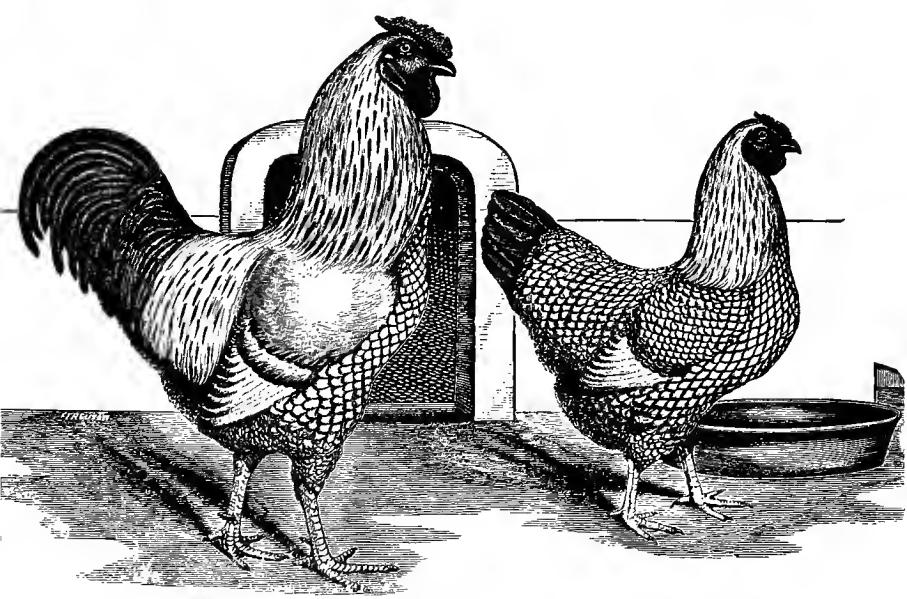
MILLINGTON'S EARLY WYANDOTTES.

This picture presents the ideal color markings of Silver Wyandottes at the time they became a Standard breed.

Javas, Hamburgs and Cochins, it meant a good deal for him to say of the Wyandottes at that time, 1884: 'There does not exist today a better fowl for all purposes. They lay a large egg and many of them; for table purposes, they surpass any variety with which I am acquainted. The hens make excellent setters and mothers, but are not so persistently broody that they cannot be broken of it, if desired. They are hardy and easily raised and their chicks reach the broiler state at an early age. This fact makes them a most desirable fowl for those who raise poultry for the market. No variety will please the farmer better. The fancier also will be pleased with them, and in the future they will form one of the leading attractions at our poultry exhibitions.'

"This, with the illustration, appeared in Dr. Weston's circular. In describing the color of their plumage, he said: 'In color they are black and white, a part of the white having a yellowish shade.' This yellowish or straw-colored shade was more commonly noticed at that time than later, when fanciers selected and bred to obtain the silvery white, and culled out those specimens showing the yellowish tinge. The illustration shows the type that Dr. Weston then most fancied and with which he won at Chicago in 1882-1883 and 1884.

FIGURE 31.



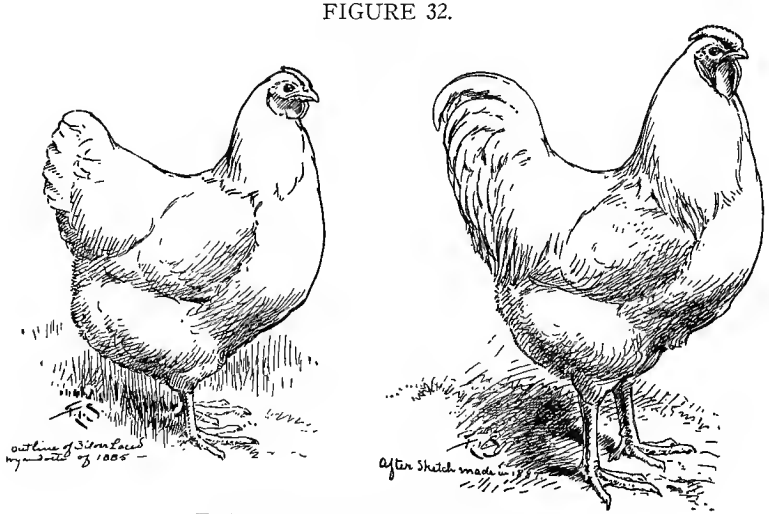
G. K. KNAPP'S EARLY WYANDOTTES.

This picture, although considerably idealized, presents fairly correctly the breed as it appeared prior to its admission to the Standard in 1883.

"As I recall my visit to the doctor's home place, where quite a number of his choicest pens were housed, I was shown three breeding pens of Wyandottes. Two of these pens very closely resembled the illustration shown here from his old catalogue issued about the time of the above last date. One of the pens contained a few females of the coarser, fluffier, more cochiny-type. I remember asking his man who was showing me through which type was most preferred, and he said that the closer, smoother-plumaged type was finest and that on this type the lacing came most distinct and clearest. On meeting Dr. Weston lately in Chicago, he described the Wyandotte with smooth-surface plumage as much preferred in the early 80's to the more cochiny-shaped specimens.

"Critical comparison of this illustration, made for Dr. E. B. Weston by the engraver, B. N. Pierce, shows the type then bred as more slender, more delicately modeled than ideals of the breed today. The head is not so broad and the throat looks more cut out. The tail is considerably developed, the sickles and hangers of greater length than present-day models, and the sickles extending beyond the tail proper. The 'double curve of the back, so much admired on the Wyandotte for many years, is quite conspicuous. The comb shows narrower at its base, not so firmly

FIGURE 32.



TYPE OF WYANDOTTE IN 1885.

The above illustration presents an outline of a Silver Wyandotte pullet, bred by F. L. Mattison of Vermont and purchased from him by Woodward and Sewell in 1885. Mr. Sewell, who sketched the above from life, describes her type as follows: "A Silver Wyandotte pullet of the fuller-feathered type. She was of good size, of fluffy under plumage and appeared unusually large." The sketch on the right represents the accepted male type of the same period.

set on the head as the type later selected and the spike extends back and slightly upwards forming a moderately-sized leader, more like the Hamburg comb."

To Franklane L. Sewell, also, belongs the credit of being the first artist to sketch faithfully the outline of a Silver Wyandotte hen in 1885.

The Wyandotte Boom and Boomerang.—At the New York Poultry Show in 1885, the Wyandotte breed was fairly under way and, like many others, we caught the Wyandotte fever. But it was not long after the boom was on, before the boomerang struck the new breed a solar plexus blow, which required years of honest endeavor and the most careful elimination of worthless breeding stock by conscientious and progressive breeders to repair the great injury inflicted by careless promoters. Commercial greed overstepped all bounds and the country was flooded with thousands of worthless scrubs, sold as Wyandottes. In fact it made no difference whether they had rose, single or pea combs, clean or feathered shanks.

There were, however, earnest breeders and fanciers who never lost courage or their faith in the breed and who remained loyal to Silver Wyandottes, fully realizing the great intrinsic value as well as remarkable beauty of feather a well-bred Wyandotte should possess. These were the pioneers that started the work of regeneration and reclaimed from public condemnation and distrust that breed which today is firmly established and admired in both America and England as one of the most useful as well as one of the most beautiful of our Standard breeds.

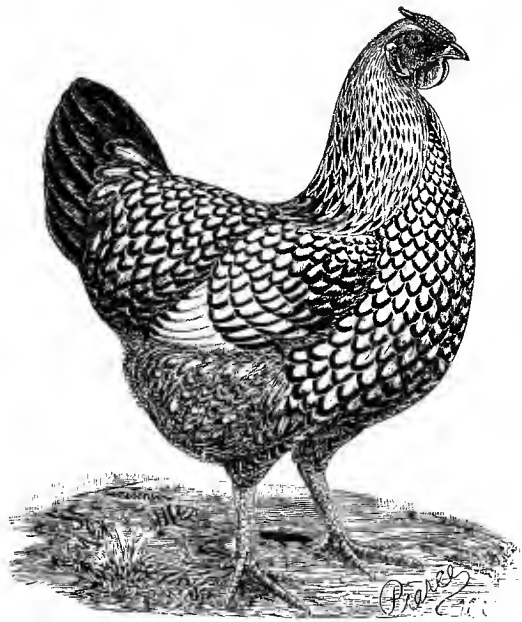
It was also in 1884 that English fanciers became interested in Silver Wyandottes, starting with foundation stock that was anything but reliable for breeding purposes, but careful selection over a period of years resulted in a greatly improved breed, especially in the color markings, the laced feathers of English Wyandottes showing much larger white centers and narrower black lacing than those found in American bred specimens in the reconstruction period of the breed.

Farsighted breeders of Silver Wyandottes in this country were not slow to take advantage of the superior lacing of the English Wyandottes, and the blood of the latter blended with that of the American Wyandotte played an important part in the development of the Standard Silver Wyandotte of today. There were many obstacles to overcome at first, for the English Wyandotte, while beautiful on the surface lacing of the

breast, wing-bow and back of females and breast, thighs and wing-bars of males, failed in the neck and wing color, and did not approach the American Standard ideal in type. In fact, the lack of typical shape and the possession of large, beefy and irregular rose combs were very serious faults which took years of careful mating and breeding to overcome.

Early Illustrations of Wyandottes.—Among the numerous wood-cut illustrations of Silver Wyandottes that appeared in poultry journals shortly after the breed was admitted to the Standard, those delineated by Pierce, Keller and Lee were representative of the ideals favored by breeders twenty-five to

FIGURE 33.



THE PIERCE TYPE OF SILVER WYANDOTTES, 1886.

The above illustration reproduced from an old print was executed by the late B. N. Pierce, one of the most competent judges of poultry in his day, and an artist who thoroughly understood how to delineate the standard characteristics of a breed or variety of fowl. In color and lacing the Pierce ideals were far in advance of the breed as seen in showrooms or breeding yards at that early day.

thirty years ago. The "Pierce type" (See Fig. 33), however, shows more correctly the shape lines of the Wyandotte, justly called the "bird of curves," the female especially representing a very typical Wyandotte of that period (1886), one that would prove acceptable in type to Silver Wyandotte breeders of the present time.

First Wyandotte Standard 1883.—In the proceedings of the Ninth Annual Meeting of the American Poultry Association held at Worcester, Mass., January 31st, 1883, the following reference to the admission of Wyandottes appeared on page 21:

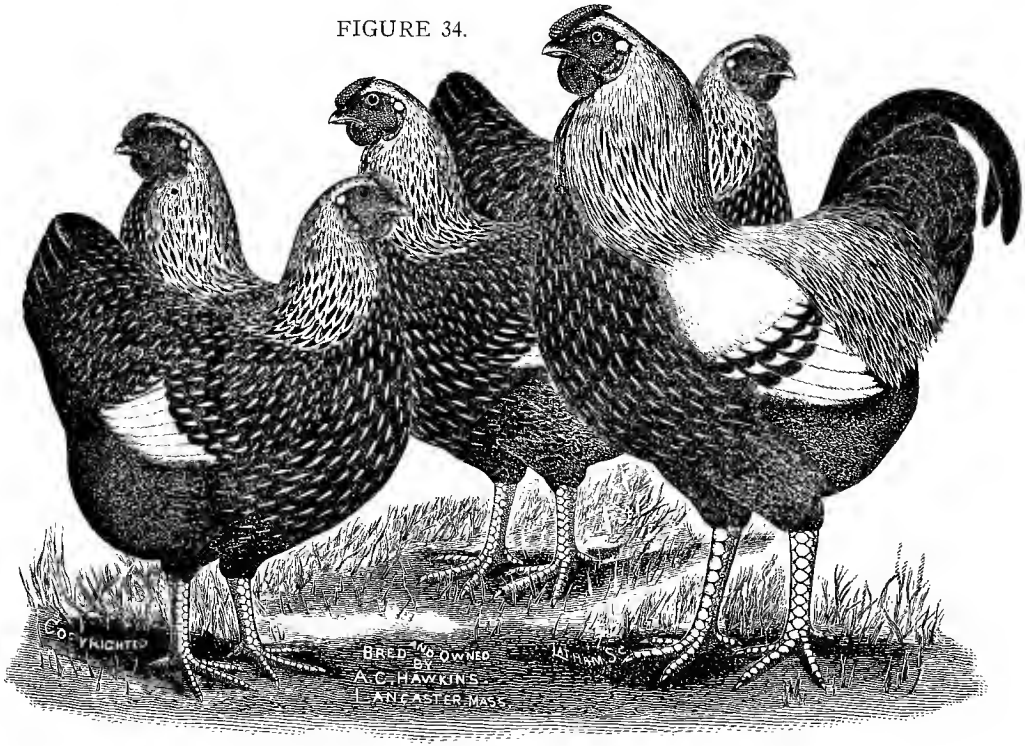
"On the so-called American Sebright variety, the Committee reported in favor of their admission and recommended that a committee be appointed to prepare a Standard to be represented at the next session of the American Poultry Association and that the name of the breed be 'Wyandottes.' The report was adopted and the following committee appointed to prepare the Standard: F. A. Houdlette, G. D. Millington and Rev. D. D. Bishop."

Mr. Houdlette submitted the report of the Committee on Wyandottes the following day and it was accepted, so that the first Wyandotte Standard was adopted by the American Poultry Association in 1883, with the following disqualifications: Birds not matching in the show-pen; combs other than rose or falling to either side; crooked backs; deformed beaks; wry tails; twisted feathers in wings or tail; shanks feathered or in color other than yellow; solid black or white breasts; solid white or yellow ear-lobes.

The Standard weights adopted were: Cocks, eight and one-half pounds; cockerels, seven and one-half pounds; hens, six and one-half pounds; pullets, five and one-half pounds.

The description of the form of lacing adopted and described in the 1883 Standard for breast and body of the cock read as follows: "Plumage under-color, slate; web of feather, black with medium-sized white centers, which taper to a point near the extremity. Body, under-color slate; web of feathers black, slightly frosted with white." The wing-coverts forming the bar in males was described as "nearly white with a black stripe through the center that widens near the point of the feather, producing a double-spangled bar across the wing." The plumage of the hen was described as follows: "Back, web of feathers black, with small white centers; cushion, full; under-color, dark slate; web of feathers, black with white centers, the white may be more or less penciled with black."

FIGURE 34.



DARK OR HEAVY-LACED WYANDOTTES OF 1888.

The above illustration, made from wood cut by Latham, delineates in a highly idealized form the type and color markings of Silver Wyandottes favored and promoted by A. C. Hawkins and other noted breeders of that time.

Breast and body-color description read: "Breast plumage in under-color, slate; web, white, each feather distinctly and evenly laced with black; body under-color, slate; web of feathers, black, with narrow white center running into black, frosted with white near the thighs."

Wing color of females was as follows: "Primaries black, with lower edge laced with white; secondaries black, inside web and round tip of feather; outer web, white with narrow stripe of black along shaft of feather; wing and shoulder coverts, dark slate under-color, with web white, heavily laced with black—the black lacing growing wider over the wing-bow, the white centers may be slightly penciled with black."

The color of the tail coverts is described as: "Web of feather black with small, white centers, which may be slightly penciled with black"; while that of thighs is: "Black, powdered with white."

The color of neck in males is described as: "Silver-white, with black stripe through the center of the feather which tapers to a point near the extremity"; while that of the back is: "Silvery, with saddle white with a black stripe through the center." The neck hackle of the female is described as: "Silvery, with black stripe through the center of the feather, tapering to a point near the extremity."

The above Standard color descriptions, crude and incomplete as they will appear today, started the American Sebright under its new name "Wyandottes" on its long, eventful and prosperous career, establishing it as one of the most popular breeds bred in the world today.

The Lee Wyandotte Type as delineated in the outline illustrations which appeared in the "Obsolete Edition" of the American Standard of Excellence of 1888 fairly represented the so-called "Lee Type" of Wyandotte shape, lacking the fullness or blockiness of the "Pierce Type."

Wyandotte Standard of 1888.—When the American Standard of Excellence was revised at the Buffalo, New York, meeting of the American Poultry Association, the outline illustrations which appeared in the first edition created such opposition among the members present that they were voted out of the Standard and all copies containing these outline sketches were marked "Obsolete Edition." They were caricatures of Standard breeds which never should have been permitted to appear in the Standard in the first place.

The ultra-fashionable type favored by several prominent

breeders in 1888 is strikingly illustrated in the highly idealized engraving, Fig. 34. In the tenth edition of the Standard (1886) the following changes were made under disqualifications:

"The words 'or tail' after 'twisted feathers in wings' were cut out, and after the words 'other than yellow' was added, 'except in hens which may be faded from yellow.' Under HACKLE (cock) the words 'at, or' were inserted after the words 'which tapers to a point.'"

The shape and color changes made at the same time were:

"Under BACK (cock) color was changed to 'silvery white.' Under PRIMARIES (cock) the description was made to read: 'Primaries, black on inside web, the outer web having a narrow white lacing.' Under SECONDARIES (cock) the word 'web' was substituted for the word 'edge.' Under TAIL (cock) the words 'carried tolerably upright' were inserted after 'well spread at base.' Under TAIL (hen) the words 'and carried moderately upright' were inserted after 'wide spread at base.'"

But it was at the Thirteenth Annual Meeting of the American Poultry Association, held at Indianapolis in January, 1888, that the text of the Wyandotte Standard was thoroughly revised, and in our opinion, marked an important epoch in Silver Wyandotte history. The committee on Wyandottes was composed of F. A. Houdlette, I. K. Felch, B. N. Pierce and Frank M. Cory. Mr. Pierce submitted the report of the Committee on Standards for Wyandottes which was adopted and referred to the editing committee, after a decision to change the name to Silver Wyandottes and the spelling of the word Wyandotte to W-y-a-n-d-o-t. The motion to change the name was carried, the spelling lost.

White and Golden Wyandottes Admitted to Standard.—The Standard Wyandotte Committee at this meeting was also instructed to select the outlines for the breed. The motion to admit White Wyandottes and Golden Wyandottes to the Standard as new varieties was adopted, and it was decided that the Standard for the above two varieties be the same as the one for Silvers, except in the matter of color. We quote the following from a report published at that time:

"A number of changes were made in the Silver Wyandotte Standard. To the list of disqualifications was added: 'Any feather on shanks or toes, combs so large as to obstruct the sight, solid white breast.' The word 'permanent' was substituted for 'solid' in connection with white or yellow in ear lobes, and the words, 'covering more than one-third the surface' added. 'Wry tails' became 'decidedly wry.' The words 'birds not matching in the show pen, and 'twisted feathers in wings' were cut out.

"In the description of the male the word 'dark' was added to the color of the beak and it was decided that the entire comb and spike 'must curve slightly to conform to the shape of the skull.' The words

'breast bone straight' were omitted from description of breast but the words 'keel bone straight' were added to the description of the body.

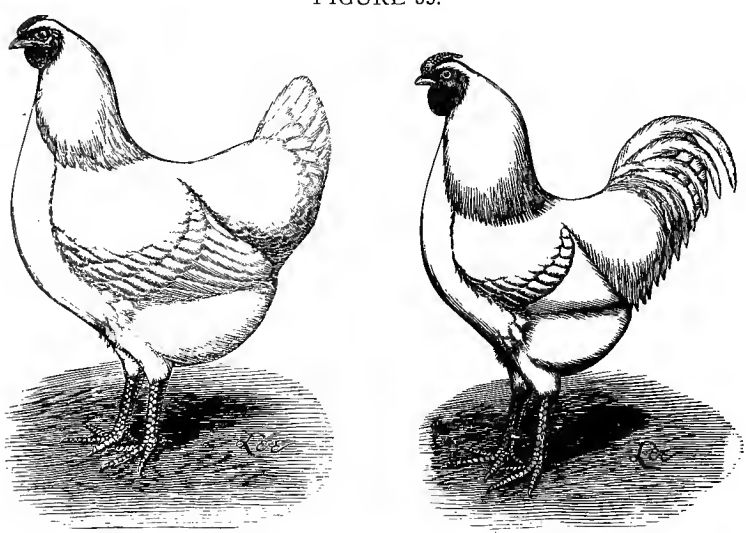
"The description of the wings was made to read as follows: 'Of medium size, well folded:—Primaries, black, with lower or outer web edged with white:—Secondaries, black, with the lower or outer half of the lower web white:—WING and SHOULDER COVERTS, under-color dark slate, web white, heavily laced with black, the black lacing growing wider over the wing-bow.'

"The LESSER TAIL COVERTS should be 'black, or black with white centers.' The soft feathers on THIGHS were described as 'black, or black powdered with gray.'

"In the description of the female the word 'dark' was also added to color of beak, the color of hackle was to be 'silvery white,' the back 'slightly cushioned, plumage abundant, web of feather black with small white centers and free from outside while lacing.' The only change in plumage of body was the insertion of the words 'or black' before the words 'frosted with white near the thighs.'

"The description of the wings was changed to the following: 'PRIMARIES, black with lower or outer web edged with white:—SECONDARIES, black with the lower or outer half of the lower web white:

FIGURE 35.



THE LEE TYPE OF WYANDOTTES.

The above sketches, drawn by Lee in 1888 and published in the book "Philosophy of Judging" in 1889, illustrate the accepted Wyandotte type of that period.

—WING and SHOULDER COVERTS, under-color dark slate, web white, heavily laced with black, the black lacing growing wider over the wing-bow.' The description of tail coverts now reads: 'GREATER COVERTS black:—LESSER COVERTS, black or black with white centers.' The feathering on thighs is to be 'black, or black powdered with gray.'

"The standard for Golden and White Wyandottes is the same as for the laced variety, barring, of course, the color. 'A solid golden bay breast' was made a disqualification in Goldens, 'feathers other than white in any part of the plumage' one in Whites. In the description of the Golden Wyandotte plumage the word 'Golden bay' should be substituted for 'white' in head, neck, breast, primaries, secondaries and wing coverts; the words 'reddish bay' in back, body and wing-bows, shoulder-coverts and tail coverts. The fluff should be 'dark slate tinged with yellow,' the soft feathers on thighs 'black, tinged with yellow.'

"In the female the color in head description calls for a 'golden bay' in neck, breast, body, primaries, secondaries, wing and shoulder coverts, and lesser tail coverts for a 'rich yellow.' Fluff and thigh coloring the same as in male.

"Our comments on the revised Standard of 1888 were published in the Poultry Bulletin, at the time, as follows:

"'It was with no little interest we read the new Standard on Wyandottes. Although not differing greatly from the old one, the new Standard contains several important changes. One of the disqualifications in the old Standard of Wyandottes was a solid white ear-lobe; in the new Standard the ear-lobe must now show more than one-third white. This is as it should be. A white, or half white, ear-lobe is decidedly bad. The breast is a section by itself, and it is valued at ten points—body and fluff being combined with a value of eight points. This makes a cut in breast count certainly two points more than formerly. Breast is ten points, five for color and five for shape. Solid black breasts are not disqualified hereafter. A good full breast in a Wyandotte is of the greatest consequence. A narrow or flat breast is bad. The breed, handsome as it is, claims utility a twin feature. It is a table fowl when well bred—equal to the best. A good table fowl should have a large full breast, and nothing brings out the fine and beautiful lacing of a Wyandotte better than such a breast. The wings of the Wyandotte retain the same number of points, four for color and four for shape. Over fifty per cent of the Wyandottes bred have too small wings and carry them too high. A large wing, showing the secondaries well developed, would add beauty and utility to the bird. A large-winged bird is apt to have good breast development.'

"*Another point we wish to call attention to is the wing-bar. It is of the some description as in the old Standard, and compels the judge to score the feathers that make the bar as spangled feathers. Having handled many Wyandottes in the past, we find the best males for breeding have heavily laced feathers that make a handsome bar. The wing fronts and even under-wings have nicely laced feathers. They are what some call 'pullet' breeders. So why should it be required that just one set of feathers that have but a color value of one or two points be spangled, when all other feathers are to be laced?*

"The back receives more attention, and no penciling is admissible, but white edging is made a severe cut. This is an improvement, but we hope our judges will cut this penciling or moss-back plumage severely.

It has been the weak point of the Wyandottes, but has been treated with too much leniency by our judges. We have been trying to breed it out and have not succeeded in doing so. Other breeders have done the same with more or less success. It must be done, but how? A friend who has had much experience and given much thought to the subject never bred from pullets, but only from hens that moulted out clean and as free as possible from penciling. This reduced his flock to a minimum, but he made a step forward, when a new difficulty presented itself, viz., he could not breed too close and wanted new blood. He wrote to us for a cockerel that would breed clean and well, and we could not find such a bird. Every male bird that we examined that year in our own and other flocks, no matter how well he looked on the surface, had under the saddle feathers plenty of feathers that showed unmistakable penciling. Thus we see the vital importance of establishing a line of male birds that are to a certain extent free from this taint.

"But, Wyandotte breeders, be careful to breed good hens also. The old law that color comes from the male principally is *not* always applicable to Wyandottes. That the latter are improving, no one questions, but the time is still a little distant when male birds get to ninety-five and females to ninety-six points. The two best male birds we saw this season scored ninety-three and one-half points each. The best female was a hen that should have scored ninety-five points had she been up to weight. The best pullet scored ninety-five points. This is under the old Standard. We are aware that birds have been scored higher than this, but it showed undue leniency on the part of the judge toward a breed that needs severe cutting to teach breeders the defects and to remedy them. In conclusion we will say to Wyandotte fanciers, carefully select well developed birds and do not breed narrow-breasted, long-backed specimens, as under the new Standard such birds will suffer severely if honestly judged.

"Under-color is important, and should be a slate as the new Standard requires; the tail proper is a solid black. White in sickle feathers, if under the surface, should not be cut severely. Some of the best birds will show some white in the sickles. *If all these little details are regarded, we believe, with careful management and mating, the Silver Wyandotte will attain the great perfection of the Silver Sebright Bantam. A good dark pullet of the latter, with a solid black tail, comes very near being a perfect Wyandotte color.*"

The italic type in the above comments is used to emphasize the fact that the ideal Silver Wyandotte in color which prevailed at the time was a bird with laced feathers of the Silver Sebright type, i. e., what the most enthusiastic admirers of the breed were striving to attain. It also goes to show that the Silver Wyandotte ideal of the most progressive breeders and fanciers of twenty or more years ago is but a replica of the ideal of the present-day fancier.

It was in 1891 that Silver Wyandottes "kept coming fast and true," that they began to measure up to the ideal of persevering breeders and admirers. The Silver Wyandottes at that time bred as true to feather and type as most parti-colored

breeds or varieties. The chief drawback had always been the mossing or penciling of the white centers, in the feathers of the females, which was especially noticeable in the hens. A pullet, often a perfect picture of beautiful lacing, would, when assuming the garb of hen-hood, discourage as well as disgust her owner by appearing in a dingy cloak of so-called laced feathers. Nine-tenths of this trouble was due to the fact that pullets, especially dark or heavily-laced ones, where bred from such a pullet, show but little white in the feathers of the back. The black (so-called) is in reality a disguised blend of penciling or mossing. The ideal Silver Wyandotte to our mind was and is a bird laced like a Sebright bantam. To produce such color markings, we must use Wyandotte hens having clean white centers to their feathers. We remember one old Wyandotte fancier who used hens only that had molted out from pullet-hood into clean-centered, laced females, and he struck the right line of breeding. We owned one of his hens which, even in her sixth year, barring her lack in shape, would have given many a pullet a hard run for the honors in the showroom.

That English breeders of Wyandottes favored the Sebright type of lacing at a very early period of its existence, the illustrations appearing in the poultry journals of England clearly indicate. And about the same time, American breeders began to discard the so-called dark type of Wyandottes and favored a more open-laced bird in color. The winning specimens at English shows approached the Sebright lacing very closely.

Black and Buff Wyandottes Admitted to Standard.—In the 1894 edition of the American Standard two new varieties were added to the other three varieties, viz., Black and Buff Wyandottes. The latter were admitted at the Chicago meeting of the American Poultry Association in 1893. The only changes made in the Wyandotte Standard were: The "one-third white in ear-lobe" was changed to "solid white." Head plumage in the Silver male was made to read, "Plumage short, close; in color, Silver White, with a black stripe extending to a fine point." To the description of ear-lobes was added, "White in ear-lobes being a serious defect"; in the saddle the under-color is described as being "dark slate," the white centers of the breast as being "large," and the shanks to be free from "stubs" as well as feathers. In the neck plumage of the female, the "shaft of the feather may be white," the plumage of the back to be "black webbed feathers with 'medium' white

centers"; the breast to be "broad, deep and fully developed," and the white centers on the breast to be "large"—are the significant changes made in the color markings, indicating clearly the tendency toward the open-laced type of Silver Wyandotte.

The only changes made in the 1898 edition of the Standard called for "laced" instead of "spangled" feathers on the wing-bar of laced varieties, and the words "small points" added to the description of the comb, the "points" being preferable to "corrugations." At this revision of the Standard the first good description of the color breeders of buff varieties were striving to obtain was adopted.

Wyandotte Illustrations, 1890 to 1900.—With rapid improvement in color and type of Silver Wyandottes, corresponding and striking advance was made in the illustrative work of our artists, notably that of Franklane L. Sewell, who was the first artist in this country to portray winning specimens at our exhibitions in a life-like and artistic manner, and it was indeed a fortunate day for the Silver Wyandotte when Mr. Sewell's brush and pen illustrated a breed he was deeply interested in. The cockerels at New York in 1894 were really a fine class, the winners being remarkable not only for their silvery surface color on hackles and saddles, but for the intensely black stripe in the feathers of same. In breast plumage, however, there was room for improvement, although some that failed to get a place were far better in this respect than the winner, but lost out by having "washed out" hackle and saddle feathers, a common fault at that time with the more openly-laced type of Wyandotte males, and one which is not uncommon in present day Standard Silver Wyandottes, more notably so in English-bred specimens.

It was in 1895 that the demand for large white centers became insistent, amounting almost to a craze with over-enthusiastic fanciers of Silver Wyandottes, but the cooler heads of some of the older breeders were far more cautious and called attention to the dangers of outcrossings which confronted the breeders who were trying to produce these open-laced Silver Wyandottes, and especially males having finely striped hackles and saddles, with breasts and wing-bars of the Sebright form of lacing.

The late F. L. Mattison, who bred the cockerel that won at New York in 1894, like Irving Crocker and Dr. A. T. Beckett, was one of the cautious breeders who had been through the mill of experience in crossing foreign blood with

his own foundation blood. He succeeded in retaining the Wyandotte shape characteristics of the breed, and produced improved neck, back and wing plumage, but failed to produce the large, open centers on the breast feathers and wing-coverts of the males.

Irving Crocker, expert breeder and judge of Wyandottes, in February of 1895, wrote us on this subject as follows:

"From information derived from correspondents and through other sources I am led to believe that the practice of mating to secure large white centers in the plumage of Silver Wyandottes is in danger of being overdone.

"Many fanciers do not seem to understand that the Standard only requires the plumage of the breast to have large centers, while that of the back should have medium ones, but endeavor to breed large centers on back and breast. Following this mistaken idea, they are entailing defects upon the breed that will prove a barrier to its progress, from the fancier's standpoint, and a misfortune to them as breeders.

"In the first place, large centers on the back will carry with them the imperfect laced feathers on the breast. This defect is often covered up by the overlapping plumage, it is true, but it is none the less a serious defect. Again, from sample feathers which have been sent me and from my own experience, I am satisfied, that as the centers are enlarged beyond a certain limit, the lustrous black lacing gives place to one which, even if black, is dull and lifeless, thereby depriving the bird of one of its distinguishing marks of beauty.

"Another defect, already too common, but which is destined to become more firmly fixed if this system of breeding is carried to an extreme, is the white edge so often run on the black lacing. I doubt if it is possible to produce large white centers without making this fault more prominent and consequently more objectionable. I am in favor of the Sebright type, and always have been, but think that efforts in that direction should be to secure a clear white center, instead of a large one. To be more definite I should say that the white center might cover from one-half to one-third the width of the feather and that this proportion may be secured with perfect safety to the other markings, while larger centers would bring with them the evils mentioned."

But warnings embodied in words of caution to breeders, such as Mr. Crocker spoke and wrote, only served to stimulate enthusiastic fanciers to further and greater efforts in breeding Silver Wyandottes up to the Sebright form of lacing and in 1898, at the Boston Show, John C. Jodrey exhibited the first American bred Silver Wyandotte approaching closely the Sebright ideal in color markings. Franklane L. Sewell sketched this forerunner of the modern female Wyandotte from life, the illustration being an idealized portrait of the bird. The latter was awarded first prize in the pullet class of great quality; in fact, the entire Silver Wyandotte class was

magnificent. Our comments on this pullet at the time were: "First pullet grand in style and shape, lacing open and regular on back, breast and wings. Wing primaries and tail, black. The finest laced specimen I have yet seen."

We should have added that the tail coverts were also laced, a feature, we believe, which should be encouraged in the Sebright form of lacing of the females.

English Silver Wyandottes.—As the blood of English Silver Wyandottes was injected into several noted strains of American Wyandottes, and played an important part in the development of the larger white-centered and more narrowly laced feathers, the history of the origin of English Wyandottes will prove interesting as well as surprising, for it can be told in very few words and these are by J. M. Philipson, Haydon Bridge, Northumberland, England, who on June 27th, 1916, replied to our quest for information on this point, as follows:

"J. H. Drevenstedt, Buffalo, New York, U. S. A.

"Dear Sir: I am in receipt of your letter of May 23rd, for which I thank you. I am kept very busy now, owing to the shortage of labor, caused by all of our young men having joined the army, but will give you a short history of the Wyandottes.

"I have very few feathers of the early Silvers and no photos, but am making inquiries of a few old breeders if they have any. I can supply you with up-to-date feathers of the very best, especially from show pullets and pullet-breeding cocks. I will also send feathers from our best show cocks and cock-breeding hens; but I think you will be surprised to learn that my Silvers were bred from Silvers imported from America, and in all the years I have bred them no outcrossing of any breed has been produced by me—nothing but the selection of the best laced and most vigorous birds has been used by me.

"I do not believe that any Silver Wyandotte breeders have ever been able to successfully use Silver Sebright blood in the making of Wyandottes.

"Yours very truly,

"(Signed) J. M. PHILIPSON."

As it was Mr. Philipson who sent over English Wyandottes to be bred and amalgamated with several Eastern strains of Silvers in this country, it will be gratifying to all admirers of the breed that no foreign blood was introduced in the birds across the sea.

It was John C. Jodrey of Massachusetts and F. L. Mattison who were among the first American breeders to become interested in and to introduce the English Wyandotte blood into their strains of American-bred Silver Wyandottes. Breeders in other parts of the country followed suit, and the results

obtained from this infusion of foreign blood became evident in a comparatively short period following its introducton, as the exhibits of Silver Wyandottes at the New York, Boston and Canadian shows strikingly illustrated.

It was the aim of our fanciers to produce the "open-lacing" or more generally referred to "Sebright form of color markings" of the laced feathers. Personally, while we favored the open-laced or Sebright form of lacing, we think that the latter is hardly the correct ideal for Wyandotte breeders to strive for; believing the conformation of the Silver Polish laced feathers to be nearer the correct ideal to breed to.

Lacing Improved by English Wyandotte Blood.—That the introduction of the blood of the English Silver Wyandotte has improved the lacing of the American variety to a noticeable degree, is the belief of many experienced breeders of Silver Wyandottes in this country. John C. Jodfrey claims that the English Silver has given us the uniformity in lacing that is seen in our best birds and has, in a marked degree, improved the female side of the Silver Wyandotte. R. G. Williams says it has helped out the females and possibly the males also. J. F. Van Alstyne expresses the opinion that it has improved the lacing very much, but Henry Steinmesch states that while the introduction of English blood has been beneficial in showing American breeders the large white centers and double wing-bar, good top color—driving out the old-fashioned spangled-wing, bronze or copper top color—it has been detrimental in this: that the black lacing will not hold its color, the extremely large, white centers being too thinly surrounded by the kind of black lacing which will hold color. This opinion, however, was expressed over five years ago, since which this defect has been overcome to a great extent.

The late Sharp Butterfield, one of the keenest judges of his day, stated that English Silver Wyandotte blood was responsible for a better outward appearance. W. E. Samson is of the same opinion. In 1910 we wrote to Mr. F. A. Houdlette (the pioneer introducer of the American Wyandotte) for his valued opinion on this infusion of English Wyandotte blood into American-bred birds, and received the following reply:

"The blood of the English Silver Wyandottes has improved the lacing of the bird immensely, but they pay very little attention to shape or to egg production, either shape or color, or to the under-color. If I were a judge I should not cut a bird or throw it out if it had white under-color. because some fanciers breed in that line and get the surface color all right, and I really think if they were white under-color instead of slate, we would

get less of the brassiness when they come to be exposed to the sun. However, it is just about as easy to breed them with the slate as with the white. I should not discard a good bird if white; that is the idea I wish to express."—Fred A. Houdlette.

Mr. Houdlette's views on under-color are shared by many other breeders of Silver Wyandottes, they justly believing color markings being of far more importance than slate under-color in the latter.

In view of the fact, as stated by Mr. Philipson, that the English Silver Wyandottes bred by him descended from pure-blooded American birds, the introduction of the so-called English Wyandotte blood into American strains of the breed is of far greater benefit in establishing the fixed color markings than if a different outcross had been made with English Wyandottes which had but a small proportion of the American blood. It also illustrates striking object lessons in the selection mating of the sire and dam from the crude foundation stock, refining the product generation after generation until the much-desired and admired form of laced feathers have been firmly established.

Shape and Color Changes, Wyandotte Standard 1898.—At the 1898 meeting of the American Poultry Association, held at Boston, comparatively few changes of importance were made in the Silver Wyandotte Standard. The feathers of the wing-bar or wing-coverts were described as "laced" instead of "spangled," and the words "small points" were substituted for "corrugations" in the description of the comb. At the same meeting, a definite understanding on the subject of buff color was reached, and the following standard description was adopted:

"Surface color throughout, one even shade of rich golden buff, free from shafting or mealy appearance; the head, neck, hackle, back, wing-bows and saddle richly glossed with a metallic lustre. Under-color, a lighter shade, as free as possible from all foreign color. Other things being equal, the specimen showing the richest under-color shall receive the preference. Black or white showing in wings or tail shall be considered alike objectionable. Specimens showing different shades of buff in neck, wings or breast, or in two or more of these sections on either male or female, shall be considered a serious defect. One harmonious blending of buff in all sections is most desirable."

Partridge Wyandottes Admitted to Standard 1901.—At the Chicago meeting of the American Poultry Association, 1901, the Partridge Wyandotte variety was admitted to the Standard on petition presented by the Partridge Wyandotte Club,

the typical shape to conform to that of the other Wyandottes, and the color markings to be described as for Partridge Cochins. A committee was also appointed at the meeting to correct omissions in the Buff Wyandotte Standard, and the following was added to the description of the variety: "Color of legs and beak, yellow; eyes, bright bay."

Silver Penciled Wyandottes Admitted to Standard.—At the twenty-sixth Annual Meeting of the American Poultry Association, held at Hagerstown, Maryland, October, 1902, Silver Penciled Wyandottes were admitted to the Standard, the color markings to be described the same as those of the Dark Brahma, the shape and size to conform to the Wyandotte breed description.

First Standard Illustrations of Wyandottes.—At the twenty-eighth Annual Meeting of the American Poultry Association, held at Rochester, New York, 1904, after a thorough discussion and numerous criticisms, the outlines delineating the correct shape of the Wyandottes were adopted. These outlines of the male and the female were sent to the artist with instructions to follow same in completing the illustrations of the different varieties of Wyandottes. These completed illustrations were then submitted for approval to the committee of five appointed at the Rochester meeting, and after suggesting minor changes, which were made, the drawings were adopted and published in the 1905 American Standard of Perfection. In addition to numerous changes in the Wyandotte Standard, the illustrated edition also contained a short description of the origin and history of the breed.

Changes in Wyandotte Standard, 1904.—The changes in Standard made for both male and female were as follows: The word "short" was added to the description of beak, eyes were to be "medium size, oval;" surface of comb was to be "covered with small rounded points," (corrugations being cut out); ear-lobes were to be "oblong in shape"; breast was to be "broad, deep, round, with low-set keel;" wings were to be "small;" thighs "showing outline of shape when viewed sideways;" shanks "short, set well apart at knee-joints, strong and well-rounded."

The tail of the male was to be carried "at the angle of fifty degrees from the horizontal;" coverts to be "abundant, filling out well in front, almost hiding the stiff feathers." The word "round" was added to description of head in female; the back was to rise "in a concave sweep to a broad, slightly-

rounded cushion, which extends to tail coverts," and the tail to be "short, well spread at base, carried at an angle of forty degrees from the horizontal."

The color of the eye was the subject of much discussion and the description "bright red or bay" was adopted for the new Standard in all varieties.

The qualifications in Silver Wyandottes were changed to the following: "Ear-lobes more than one-half positive white; shanks other than yellow." Better descriptions were substituted in many sections.

The following color description for Silver Wyandottes was given for breast in male, and back and breast in female: "Web of feathers black, with large, oval-shaped white centers, free from black or brown, black lacing sharply defined and free from white edging, under-color slate." In the description of fluff of male and female the following was added: "Laced feathers desirable, under-color dark slate." Descriptions of wings in both male and female were changed to read as follows: "Primaries black, lower edge white; secondaries black, lower half of outer web white, with a narrow black edging, wider at tip." Under-color in wing-bows was changed to "dark slate"; thighs to "black or dark slate, powdered with gray; laced feathers desirable." In the description of the female, the word "narrow" was omitted in speaking of the white centers of the lesser tail coverts.

The description of the color markings of Golden Wyandottes was the same as that for the Silver variety, except that "golden-bay" for "white"; "powdered with golden-bay" for "powdered with gray" in thighs and fluff, and "dark slate or dark slate powdered with golden-bay in under-color," were substituted.

To the disqualifications of White Wyandottes was added: "Red, buff or positive black in any part of the plumage"; the feathers were to be "pure white, quills and shafts included."

The following disqualification was added to the Black Wyandotte Standard: "White or red in any part of plumage extending more than one-half inch."

To the description of color for Buff Wyandottes was added: "Face bright red, comb, wattles and ear-lobes bright red, shanks and toes yellow."

In Partridge Wyandottes under-color was changed in all sections from "slate" to "dark slate." The breast of the male was described to be a "glossy" black and a "red shaft" was to

be "allowable" in saddle feathers. Change in description of wings was made as follows: "Primaries, black; lower edge red; secondaries black, the outside web red, terminating with black at end of each feather." In the female, "penciling in central portion of feathers allowable" was added to description of wing; the penciling in back and breast was to be "dark brown" not "black or dark brown," as before. The word "irregularly" was omitted before "penciled with a darker brown" in describing body and fluff. To the description of tail was added: "The two highest main tail feathers penciled with reddish brown."

The under-color of Silver Penciled Wyandottes was changed to "dark slate" instead of "dark slate or gray" in all sections where it appeared. The wings of the male bird were described as follows: "Primaries, black, lower edge, white; secondaries, black, outer web, white, terminating with greenish black at the end of each feather." Thighs were to be "black, tinged with gray." No changes were made in the color description of the female, except in under-color as above stated.

Columbian Wyandottes Admitted to Standard, 1906.—At the Annual Meeting of the American Poultry Association held at Cincinnati, Ohio, 1906, Columbian Wyandottes were admitted to the Standard, and a color description of this variety was inserted in the new edition of the illustrated Standard, which read as follows:

"**Disqualifications:** Ear-lobes more than one-half positive white; solid black feathers in back; shanks other than yellow or reddish yellow.

"**Color of Male and Female:** Same as in the Light Brahmas, except that the color of beak is horn, shading to yellow at the point; and that black, prevalent in web of feathers in back of female does not disqualify, but is a serious defect."

Standard Wyandottes in 1910.—The changes made in the Wyandotte Standard at the Annual Meeting of the American Poultry Association held at Niagara Falls, New York, August 10, 11 and 12, 1909, were comparatively few, which did not materially affect the mating, breeding and exhibiting of Wyandottes. More value was given to shape and less to color, which proved beneficial to all varieties of Wyandottes and more particularly so to the White variety.

Disqualifications remained the same, except that "one-quarter of positive enamel white in ear-lobes" took the place

of "ear-lobes more than one-half positive white." A wise change, as it prevents judges from throwing out specimens showing pale lobes approaching white caused by being cooped in.

In the male, the description for the eyes was changed from "medium size, oval" to "large, oval," which was an improvement, as the eye of a Wyandotte is of good size and a characteristic feature of the breed. Another beneficial change made was in the description of the comb, which read: "Rose, low, firm on head; top, oval and surface covered wtih small, rounded points, tapering to a well-defined point at the rear; entire comb curving to conform to shape of skull." This did away with the Hamburg type of comb and its large spike.

The description of wattles was changed to read: "Moderately long, nicely rounded at lower edges, equal in length, fine in texture, free from folds and wrinkles." A clearer idea of ear-lobes was also given in describing them as "oblong, well-defined, hanging about half the length of wattles, smooth," instead of "oblong in shape, well-developed and smooth."

"Flowing well over shoulders" was the word description added to "hackle abundant" in the neck, while "saddle feathers abundant" was added to the back section.

The description for breast remained the same, except that the words "with low-set keel" were omitted and placed in the body section, a more correct definition, as the keel is a part of the body and not of the breast.

Description for wings was changed to read: "Small, not carried too close to body; sides well rounded," the words "to body" being added to the old description. Personally, we should have liked to see large wings called for, as they usually accompany a broad, deep, round breast, but in the modern Wyandotte, especially in the White variety, small wings have been the fashion.

The tail description remained the same, except that sickles were described as "moderately long" instead "of medium length."

No changes were made in the description of legs and toes except in shanks which read: "Shanks and toes, free from feathers, stubs and down."

In the shape of female, the sections describing eyes, comb, breast, body, wings and legs and toes, were changed to conform to those describing the shape of the male. The back of

the female was described as follows: "Short, broad, flat at shoulders, rising in a concave sweep to the broad, slightly rounded cushion which extends well on to main tail; plumage, abundant." The change consisted in substituting the words "well on to main tail" for "which extends to tail coverts." This gave a clearer definition of what an ideal back is like, as the back cushion really extends beyond the juntcure of the tail coverts and the back.

The descriptions for standard shape in Wyandotte male and female in the 1910 Standard were correctly, briefly and clearly expressed in language which everyone could readily understand.

Color changes in the several Wyandotte varieties were confined to the elimination of superfluous words, making the descriptions of the feathers of laced and penciled varieties more technically correct, and giving to under-color a less arbitrary value.

Silver Wyandotte Color Changes.—In Silver Wyandotte males and females eyes were described as "bay or reddish-bay," instead of "bright red or bay," which also applied to all other varieties, except the Black. Reddish-bay defines and qualifies the color more specifically than "bay," which is too indefinite, being any shade from very light brown to hazel.

The description of the shaft of the feather in the plumage of the neck was changed to read: "White," instead of "may be white," which is important, as it is characteristic of the modern Silver Wyandotte to exhibit this tendency to white in the hackle feathers, a very important point in breeding the large white-centered form of lacing.

The under-color description also was wisely changed to read "slate" instead of "dark slate"—a safety valve to keep under-color cranks from overlooking the more important surface color sections.

The description for back of male was changed to read: "Back, silvery white; saddle, silvery white, a black stripe through each feather tapering to a point near its extremity, having a tapering, diamond-shaped center of white; under-color, slate"; the words "tapering to a point near its extremity" being added after the word "feather." This gave a better idea of the surface striping of the saddle feathers. The diamond-shaped centers are partially covered, and do not show on the surface, except in some specimens having exceptionally large and long white centers, a virtue rather than a fault.

The color description of breast was radically changed to read: "Web of feather, white, laced with a narrow, lustrous, greenish-black, sharply defined lacing, to conform to the edge of feather."

Body-color description, of course, was changed to conform to the new definition of breast lacing. Wings remained the same, except that under-color was changed to "slate" instead of "dark slate." The tail of the male was described more correctly as: "Black; sickles and greater coverts, lustrous, greenish-black; lesser coverts, black, with diamond-shaped white centers, feathers laced with white." This brings out the important color point in the coverts in an unmistakable manner.

Legs and toes were also given an overhauling, and described as follows: "Web of feather, white, laced with narrow, lustrous greenish-black, sharply defined lacing, to conform to edge of feather; under-color, slate." This applies to the color of the thighs, a much clearer and more advanced definition than the "black or dark slate, powdered with gray, laced feathers desirable," which appeared in the previous Standard. Shanks and toes were described as "yellow," with the clause, "red showing at outer sides, back of scales, not a defect," added. It seems that some judges have cut this reddish pigment on yellow-shanked fowls as a defect, when in reality it is a most desirable quality, and usually accompanies rich, yellow legs in fowls.

The Silver Wyandotte female received similar treatment in the laced sections as the male, the description of a laced feather being the same in both. The color of neck was changed somewhat, the shafts of feathers being described as "white" instead of "may be white," which corresponds with the description of the male neck feathers.

The description of tail was changed to read: "Black; the upper sides of the two top feathers edged with white; greater coverts, black; lesser coverts, black with white centers." The white edging required on these feathers was in the line of progress.

Golden Wyandotte Changes.—Golden Wyandottes were described in detail in the new Standard, the words " golden bay" being substituted for the "silvery white" and "white" of the Silver Wyandotte; otherwise the description was the same as for the latter.

White Wyandotte Changes.—White Wyandotte plumage was described as follows: "Web, fluff and quills of feathers

in all sections, pure white," which was perhaps a trifle more explicit than the old description. Color of eyes, shanks and toes was the same as required on Silver and Golden Wyandottes, except that toes were to be "yellow" only, with no "dusky yellow," as was allowed in Goldens.

Black Wyandotte Changes.—The Black Wyandotte Standard suffered few changes, the most important one being in the color of eyes, which were described properly as "black or dark brown" instead of "bright red or bay." Color of shanks and toes remained the same, viz., "Black, shading into yellow or willow." Some breeders advocated pure yellow shanks for Black Wyandottes, but the majority preferred the adopted standard color, believing that yellow shanks accompanied white in plumage, especially in the under-color. Color of plumage was described as: "Surface, lustrous, greenish-black throughout; under-color, black." A Black Wyandotte with such under-color is in no danger of developing rich yellow legs.

But Little Change in Buffs.—Buff Wyandottes were subjected to no changes in color, except in eyes, which were the same as described in White, Silver and Golden Wyandottes—"Bay or reddish bay." The color description of plumage remains substantially the same, only a few superfluous words and sentences being eliminated. That for the male now read: "Surface throughout, an even shade of rich, golden buff, free from shafting or mealy appearance, the head, neck, hackle, back, wing-bows and saddle richly glossed; under-color a lighter shade, free from foreign color. Different shades of buff in two or more sections is a serious defect. A harmonious blending of buff in all sections is most desirable."

The plumage of the female was described as follows: "Surface throughout, an even shade of rich, golden buff, free from shafting or mealy appearance, the head and neck plumage showing luster of the same shade as the rest of the plumage; under-color, a lighter shade, free from foreign color. Different shades of buff in two or more of these sections constitute a serious defect. A harmonious blending of buff in all sections is most desirable." The words "metallic luster" were eliminated, "richly glossed" being sufficient in describing the sheen or luster of buff plumage. The sentences: "Other things being equal, the specimen having the richest under-color shall be given the preference," and "Black or white appearing in wings or tail is a serious defect, and the one shall be consid-

ered as objectionable as the other," which appeared in the previous Standard, were stricken out. The former, for the obvious reason that judges naturally would prefer the stronger under-color, the latter for the stronger reason that black or white in buff feathers are defects and need not be described in buff color definitions.

Partridge Color Changes.—The color of Partridge Wyandottes was changed to meet the wishes of the Partridge Wyandotte Club, the principal changes being, in male: "Head: Plumage, bright red." "Eyes, bay or reddish bay." "Neck, bright red, with lustrous, greenish-black stripe, running nearly parallel with the edges and extending through each feather, tapering to a point near its extremity; under-color, slate." "Back: Dark red; saddle, bright red, with a lustrous, greenish-black stripe down the middle of each feather as in hackle, under-color slate." "Body and fluff: Body and fluff, black, marked with reddish-brown, reddish-brown not to predominate; under-color, slate." "Wing-bows, dark red; fronts, black; primaries, black, lower edges reddish-bay, terminating with greenish-black at end of each feather; coverts, lustrous, greenish-black, forming a well-defined bar of this color across the wing, when folded." "Tail: Black; sickles and coverts, lustrous, greenish-black; lesser coverts, lustrous greenish-black, edged with bright red." "Legs and toes: Thighs, black; shanks and toes, yellow; red showing at the outer sides, back of scales, not a defect."

Slate, instead of dark-slate under color, should produce better and brighter colored cockerels and pullets. After a careful comparison and study of specimen feathers plucked from choice exhibition specimens, the color terms used in matching the darker and lighter shades of feathers were submitted, the standard sections of the female being described as follows:

"Head: Plumage, mahogany brown." "Neck: Reddish-bay, center portion of feathers black penciled with mahogany brown extending down middle of each feather, running nearly parallel with the edges of the feather and tapering to a point near its extremity." "Back: Mahogany brown, distinctly penciled with black, the outlines of penciling conforming to shape of feathers, under-color, slate." For breast and wing-bows, the same color description as for back was adopted. Tail coverts and thighs were described as "mahogany brown, penciled with black." The two top feathers of the tail were described as "black, penciled with mahogany brown." Each

feather in back, breast, body and wing-bows was required to have "two or more distinct pencilings and to be free from shafting." In the 1905 Standard the color was described as "mahogany red or reddish-brown, distinctly penciled with very dark brown," an obsolete pattern rarely to be found in the feathers of high-class Partridge Wyandotte females, the penciling of the feathers showing a lustrous, greenish-black which is intensified by the mahogany brown ground color.

Silver Penciled.—The Silver Penciled Wyandotte Standard remained practically unchanged, the changes made simplifying some of the descriptions by the word-pruning and refining process. The color descriptions were identically the same as those for Dark Brahmas. The striping in the neck was changed to "lustrous greenish black" from a "distinct Black stripe," and the under-color from "dark slate" to "slate" or "slate or bluish-white" in some sections. The only change made in color of tail was in substituting the word "lustrous" for "glossy"; while body and fluff descriptions were changed to read: "Body, black; under-color, slate, or bluish white. Fluff, black, slightly tinted with gray." This change called for a sound, black body, which is the continuance of the black breast —"slightly frosted with white," being eliminated from the description, the word "tinged" substituted for "frosted," which is more applicable in describing the color of fluff.

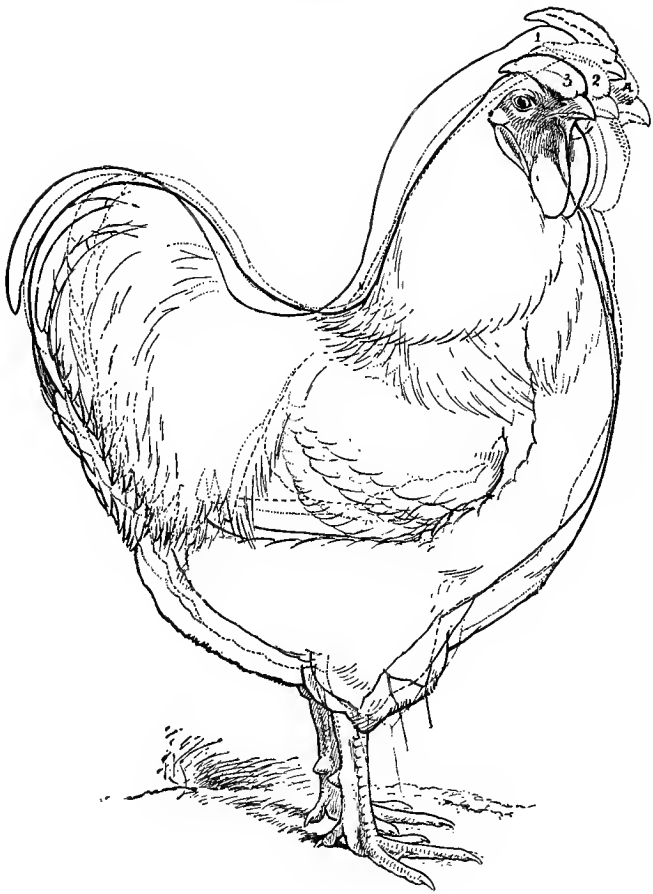
Regarding the color of Silver Penciled Wyandotte females, "Silvery white, with broad, black stripe running nearly parallel with edges and extending down middle of each feather, tapering to a point near its extremity", was an important change made in the description of the neck section. This called for a solid black stripe in female hackle feathers, a radical change from that required in the old Standard, which allowed slight penciling with silvery white in the black stripe, which is a characteristic to be found in the most finely penciled specimens; and we never saw a Silver Penciled Wyandotte exhibition hen with absolutely black striped hackle. The upper webs of secondaries were changed to "black" from "dull black," the only other change made for the 1910 Standard.

Columbian Descriptions.—Columbian Wyandottes were given the same color description as that for Light Brahmas, which has been found satisfactory to Brahma breeders, with the exception of hackle, which read: "Web white with solid, lustrous, greenish-black stripe extending from fluff down middle of each feather, running nearly parallel with edges of

feather and tapering to a point near its extremity." The words, "one-half or more of its length" being replaced by "from fluff down", in males, which is more definite. In other words, it meant that the stripe must be black in the web of the feather only, the under-color white, bluish-white or slate. The description of back was changed to allow saddle hangers to have some striping. Black striping in the saddle hangers of Columbian Wyandottes is a color characteristic of the variety and the more solid black and intense this striping is in the Columbian Wyandotte, the finer the white edging, or lacing, will be.

In Columbian Wyandotte females, the color of wing-primaries was made the same as for the male, viz.: "Black, with white edging on lower edge of lower web." This change was requested by the majority of breeders, and is in line with the wing-color of the modern type of Light Brahma females. The back color of the female adopted was described as "Surface, white; cape, white or black and white; under-color white, bluish-white or slate", breeders of Columbian Wyandottes insisting that such a wide color range was just to the variety at the early stages of its development. As black in web of back feathers was not made a disqualification, there was no reason for describing surface color of back other than white. The American Standard of Perfection describes an ideal bird in plumage, so there can be but one ideal color for back, and that is white. (J. H. D.)

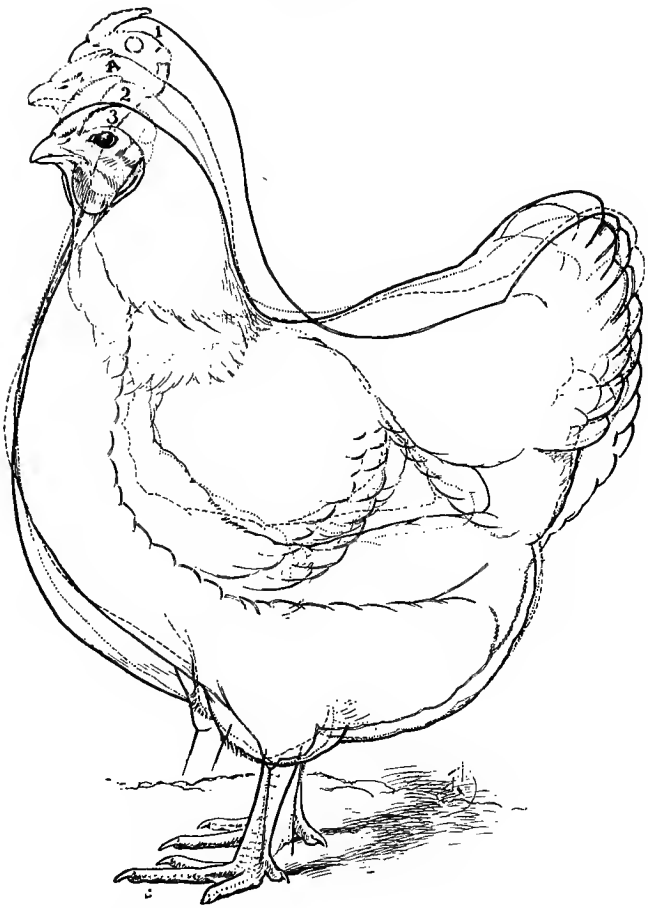
FIGURE 36.



COMPARISON OF MALE TYPES.

The outline presented in soft tone is a composite ideal which embodies the suggestions made by leading breeders in 1910, drawn by F. L. Sewell. The sharp black outlines are from drawings by J. Henry Lee published in the American Standard of Excellence in 1888, the first illustrated Standard.

FIGURE 37.



COMPARISON OF FEMALE TYPES.

The outline presented in soft tone is a composite ideal which embodies the suggestions made by leading breeders in 1910, drawn by F. L. Sewell. The sharp black outlines are from drawings by J. Henry Lee published in the American Standard of Excellence in 1888, the first illustrated Standard. This edition was soon declared obsolete and withdrawn from circulation.

CHAPTER IV.

STANDARD REQUIREMENTS FOR SHAPE OF ALL VARIETIES.

Disqualifications.

Ear-lobes more than one-quarter positive enamel white.

STANDARD WEIGHTS.

Cock	8½ lbs.	Hen	6½ lbs.
Cockerel	7½ lbs.	Pullet	5½ lbs.

SHAPE OF MALE.

Head.—Short, round, broad.

Beak.—Short, well curved.

Eyes.—Full, oval.

Comb.—Rose, low, firm on head; top, free from hollow center, oval, and surface covered with small, rounded points, tapering to a well defined point at rear; the entire comb curving to conform to the shape of skull.

Wattles and Ear-Lobes.—Wattles, moderately long, nicely rounded at lower edges, equal in length, fine in texture, free from folds or wrinkles. Ear-lobes, oblong, well defined, hanging about one-third the length of wattles; smooth.

Neck.—Short, well arched; hackle, abundant, flowing well over shoulders.

Wings.—Medium in size, not carried too closely to body; sides, well rounded.

Back.—Short, broad, flat at shoulders; saddle, broad, full, rising with concave sweep to tail; saddle feathers, abundant.

Tail.—Short, well spread at base, carried at an angle of fifty degrees above the horizontal (see illustration, fig. 23); sickles, moderately long, curving gracefully and closely over tail; coverts, abundant, filling out well in front, hiding the stiff feathers.

Breast.—Broad, deep, round.

Body and Fluff.—Body, moderately short, deep, round; fluff, full-feathered, well rounded.

Legs and Toes.—Thighs, short, stout, showing outlines when viewed sideways, well covered with short feathers; shanks, short, stout, well set apart, well rounded; toes, straight.

SHAPE OF FEMALE.

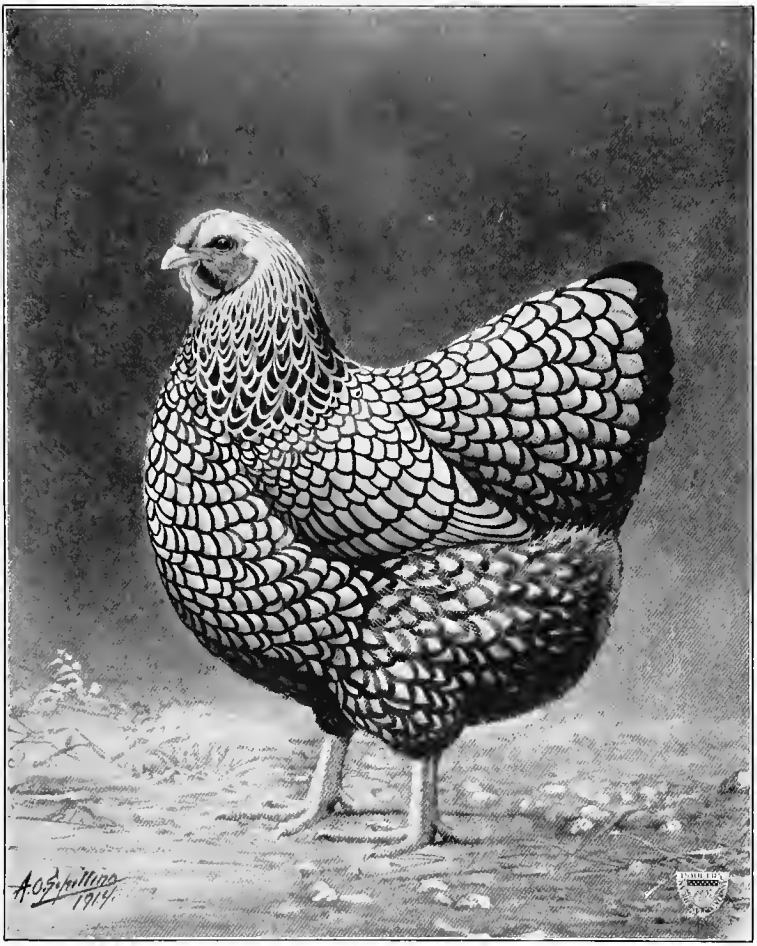
Head.—Short, round; crown, broad.
Beak.—Short, well curved.
Eyes.—Full, oval.
Comb.—Rose, similar to that of male, but much smaller.
Wattles and Ear-Lobes.—Wattles, fine in texture, well rounded. Ear-lobes, oblong in shape, well defined.
Neck.—Short, well arched; neck feathers, abundant.
Wings.—Medium in size, well rounded and well folded; fronts, well covered by breast feathers.
Back.—Short, broad, flat at shoulders; rising in a concave sweep to a broad, slightly rounded cushion, which extends well on to main tail; plumage, abundant.
Tail.—Short, well spread at base, carried at an angle of forty degrees above the horizontal (see illustration, fig. 22); coverts, abundant.
Breast.—Broad, deep, round.
Body and Fluff.—Body moderately short, deep, round; fluff, full-feathered, well rounded.
Legs and Toes.—Thighs, short, stout, well spread, showing outlines when viewed sideways, well covered with soft feathers; shanks, short, stout, set well apart, well rounded; toes, straight.

PLATE 1.

STANDARD SILVER WYANDOTTE MALE.

Correct in Shape for all Varieties of Wyandottes.

PLATE 2.



STANDARD SILVER WYANDOTTE FEMALE.

Correct in Shape for all Varieties of Wyandottes.

PLATE 3.

IDEAL WYANDOTTE MALE HEAD.

Correct in Shape for all Varieties of Wyandottes.

PLATE 4.

IDEAL WYANDOTTE FEMALE HEAD.

Correct in Shape for all Varieties of Wyandottes.

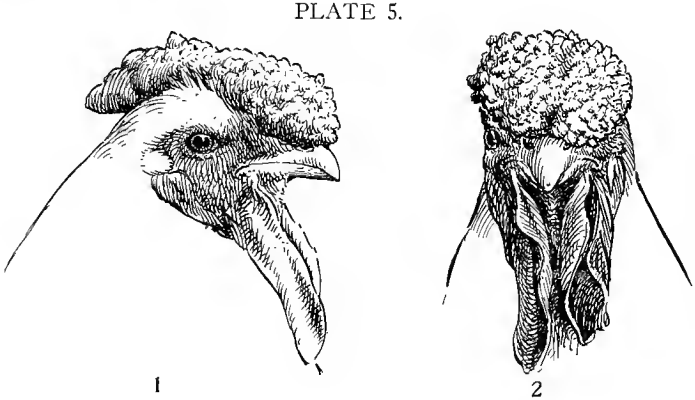
CHAPTER V.

COMMON DEFECTS AND HOW TO OVERCOME THEM.

IT SEEMS to be difficult for some breeders to see the defects that exist in their own birds. It should be conceded, however, that every breed has its characteristic faults, and no flock has attained that general perfection where progressive breeding is no longer necessary. Therefore, let us consider the common defects of the Wyandotte, and study how to mate to overcome them.

The Head Points.—The head of the Wyandotte is the eminently characteristic feature of the breed. A good head is usually the possession of a Wyandotte that is also good in body type. In selecting birds for the breeding yard, those that have a long, narrow skull and flaring eye should not be considered. Such birds are designated as "snake-headed" and should be eliminated.

PLATE 5.

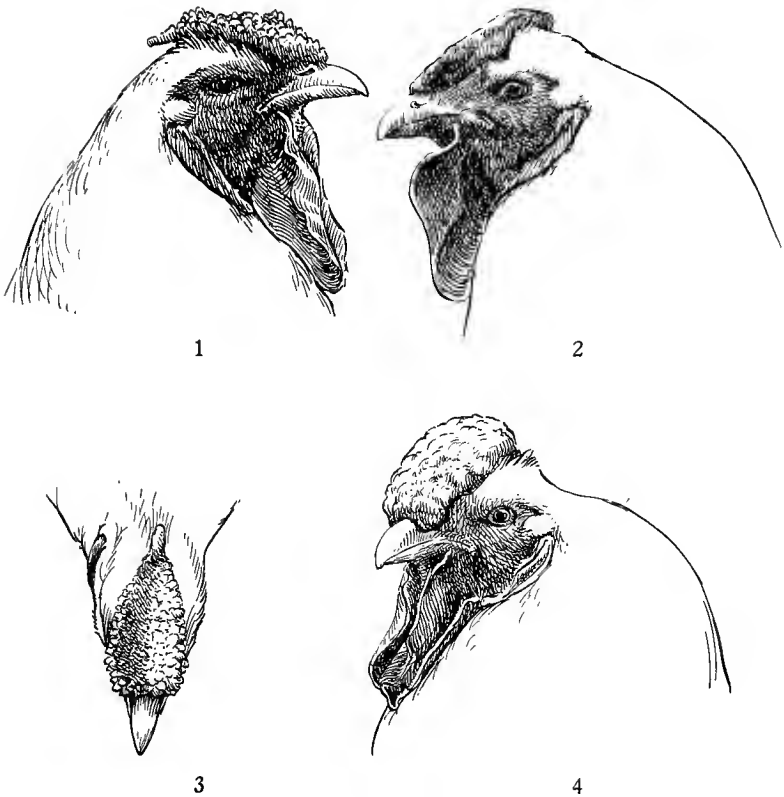


1 2

DEFECTIVE MALE COMBS AND WATTLES.

1—Comb too large and too coarse. Spike too large and too coarse. 2—Comb too broad and lopped, obstructing the sight on one side. Wattles wrinkled and uneven in length.

PLATE 6.



1 2 3 4

DEFECTIVE MALE HEADS.

1—Weak, narrow skull. Comb too small and undeveloped. Eyes too small and deep set. Beak too long and narrow. 2—Comb too flat, smooth on top and narrow and thin in front. 3—Narrow head and skull. Concave comb. 4—Comb too thick and rounded, lacking small points on top, extending down over sides of beak. Ear-lobes too small and wrinkled. Too much curve in neck.

The Standard comb is nicely pebbled. Smooth combs are useful in maintaining the Standard type, and in mating for good combs it is advisable to breed from one sex which pos-

sesses a practically smooth comb. Coarse combs, in which the pebbling appears as points, are apt to result from breeding the Standard pebbled comb in both sexes.

The breeder should examine the female comb closely, even though the comb of the female is much smaller than that of the male. It is well to ask the question: "If this female's comb were as large as the comb on a male, would it be unsightly?" In this day when good quality specimens are widely distributed, and there are many good birds to select from, the breeder should not breed from a female that may produce cockerels whose combs will at once condemn them.

Good laying pullets, or those that have been fed rich feed for egg production, are apt to have large, loose combs. In strictly exhibition bred stock, neater combs prevail. If the breeder is able to put his finger and thumb (one on each side) between the comb and the head, the bird can hardly be expected to produce males whose combs fit their heads closely.

Long points on the comb, a hollow in the center, or a depression in the comb, a very wide front on a comb, a very narrow comb, a hump or twist in the comb, or a loose comb as above described, are defects in the breeding bird as well as the show specimen.

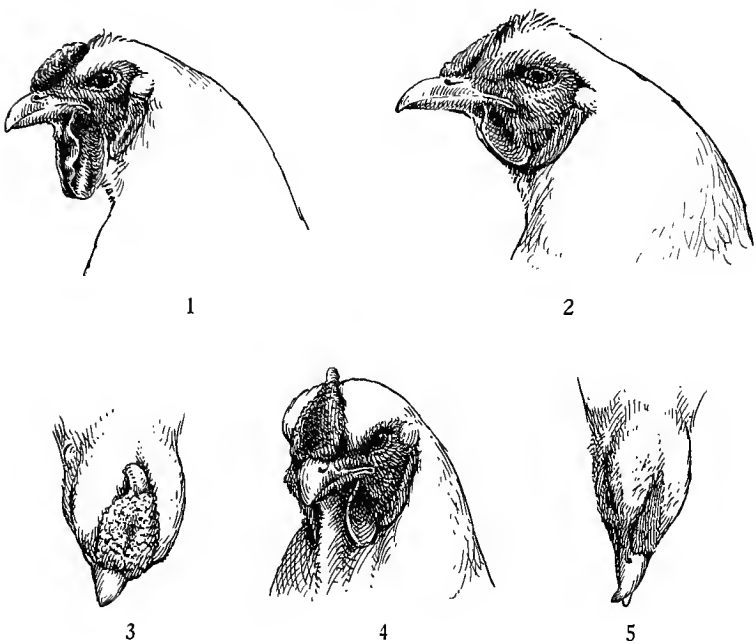
Absence of Spike.—Absence of spike disqualifies a Wyandotte. A long spike is not necessary. It is desirable that the spike should follow the contour of the head, giving to the entire comb a rocker appearance. A spike that is sunk in the comb, like a cork in a bottle, is a serious defect, and if allowed in the breeding yard it will show in some of the young stock and will keep cropping out from year to year. A well formed spike always adds to the symmetry of the comb and head. The spikes of some rose combs are split half way in toward the comb proper into three irregular points. This is due to a trifid element being added to the rose comb, and is dominant in breeding. Since the Standard provides that these extra spikes shall be cut one point each, the defect is a serious one; and it being a dominant factor, the birds having it should be considered culls.

There are five sections of the head with a total valuation of 16 points, of which 8 points are allotted to the comb alone. In the Wyandotte breed, however, no head feature is ever passed by the studious breeder or judge without due consideration.

White in Lobes.—White in ear-lobe is an old fault of the breed, now practically eradicated from the males, but occasionally seen in the females. Some males show a paleness in lobes that is not enamel white; and such weakness of color may be due to a disturbance of constitutional vigor caused by intestinal worms. In this case, the circulation is poorer at some times than at others, and the lobes therefore appear lighter in color at some times than at others.

If more than one quarter of the surface of the lobe is posi-

PLATE 7.



DEFECTIVE FEMALE HEADS.

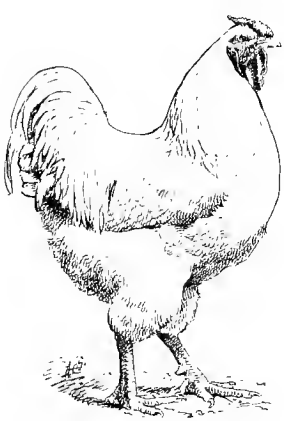
1—Absence of spike on comb. Wattles too long and also wrinkled. 2—Weak expression indicating lack of vitality. Eyes too small. 3—Skull too wide. Beak too short. Spike turning to one side instead of straight. 4—Head too coarse. Brows overhanging. Too full and prominent between wattles. Comb hollow on top. Spike not following skull. 5—Weak, narrow skull. Narrow undeveloped comb. Cross beak.

tive enamel white, the defect disqualifies. Until the Standard of 1905 was made, solid white ear-lobes disqualified. In the Standard of 1905, ear-lobes that showed more than one-half positive white disqualified. This was reduced to a quarter in 1910, and so remains. With the gradual improvement, it becomes increasingly difficult to win with weak lobed birds, and the careful breeder seeks soundness of color in this section.

In a show Wyandotte, the wattles should not be coarse in texture nor long with heavy folds. In the breeding yard, however, a short wattle bird may prove the weaker breeder. Sometimes one wattle is longer than the other, due to frost bite affecting one side more than the other. This is not a serious defect.

The upper mandible (upper half of the beak) of the typical Wyandotte is short and well curved. A long beak is com-

PLATE 8.



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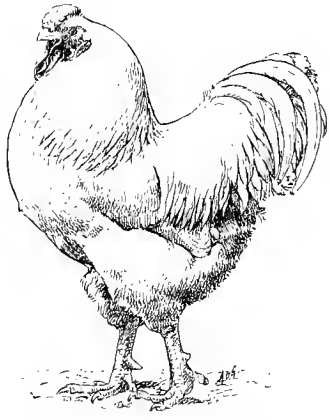
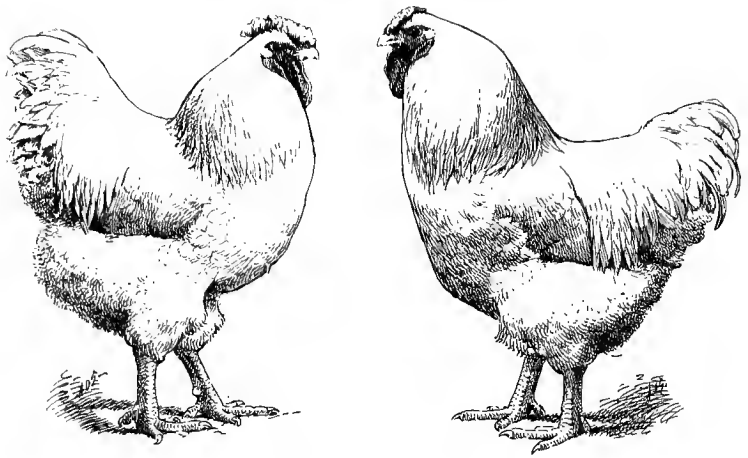


2

DEFECTIVE MALE SHAPE.

1—Neck too thin at throat. Tail too high. Body too short. Legs set back too far and too long. 2—Too full curves in neck and breast. Wings too low at tips. Shanks too short.

PLATE 9.



1 2

DEFECTIVE MALE SHAPE.

1—Coarse in type generally. Comb coarse. Tail not well furnished. Saddle carried too high. 2—Neck carried too far forward. Back too long and straight. Deficient tail.

monly found in the snake-headed type, and such a specimen is of no value to the breeder. A deformed beak puts the bird at an enormous disadvantage and an unfortunate specimen of this kind should be culled out as a chick, long before the time for mating arrives.

Pearl eyes are recessive to red and there is, therefore, poor excuse for weak eyes in Wyandottes. Many birds have perfect eye color and if such a one is bred, and then bred back to, the number of good eyes in the chicks will be very encouraging. Defective eye color is considered more serious than formerly, the maximum cut for eyes that are too light in color being ½ point until the 1905 edition of the Standard; whereas the cut was subsequently increased to ½ to 1½ points.

The Neck.—A well arched neck should support the well rounded head of the Wyandotte, **for every line of the typical**

Wyandotte is a curve, and a long, thin neck would spoil the symmetry of the bird. When the male is viewed from the side, his wattles should rest against the swell of a flowing neck hackle. The best exhibition males not only have the back of their hackle nicely arched from head to cape, but the hackle is also well rounded at the sides, swelling out immediately below the ears.

The bone and meat of the neck is a slender part of the body, and the entire outward appearance of this section depends upon the plumage. The fullness of the back, the length and furnish of the tail, in fact the general outline of the bird is likewise dependent upon the plumage.

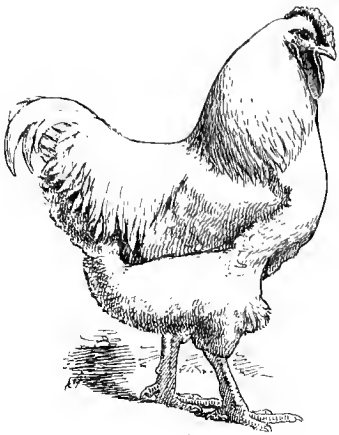
Plumage Quality.—Anything that retards or arrests the development of the feathers, such as dirty quarters, crowding, lack of animal food or greens, is equally as important as breeding. While good care will not transform a poorly bred bird into a prize winner, the lack of care will ruin the finest chick ever bred.

It is not alone a matter of the right quantity and distribution of plumage. **Plumage has texture.** Where there is a connection of filaments, or threads, as in a woven fabric, there is texture. This feature of the plumage may very in different birds, also in different strains and varieties, and this gives rise to different qualities of feather. The highest type of show Wyandotte has a decidedly smooth surface or texture to its plumage. This is developed to the finest point in some White and some Black Wyandotte females.

A certain amount of hardness of feather is necessary if this smooth surface is to be obtained. A loose, profusely feathered bird has a softer, fluffier character of feather. To produce the smooth surface, look well to the male, selecting a lustrous plumage bird whose breast feathers are hard and smooth, the same being secured by each individual feather being well webbed together clear to its outer edges. Such a male should carry a considerable quantity of webbed feathers in fluff of body.

A number of Wyandotte females carry too much fluff for show purposes. The male described above is a good mate to correct this fault and produce the neater lined pullet with smooth surfaced plumage. The hock of the female should show when the bird is viewed from the side. If the body feathers are long and profuse, covering up the hock line, the

PLATE 10.



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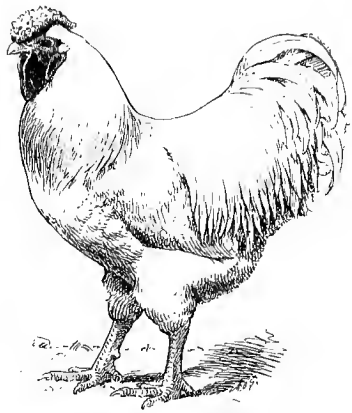

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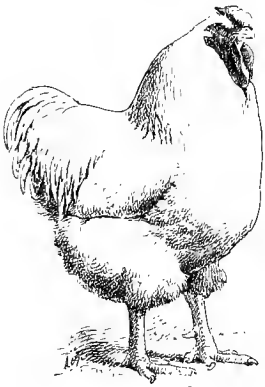

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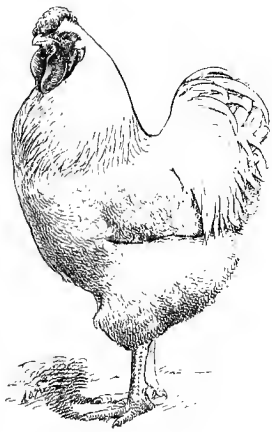
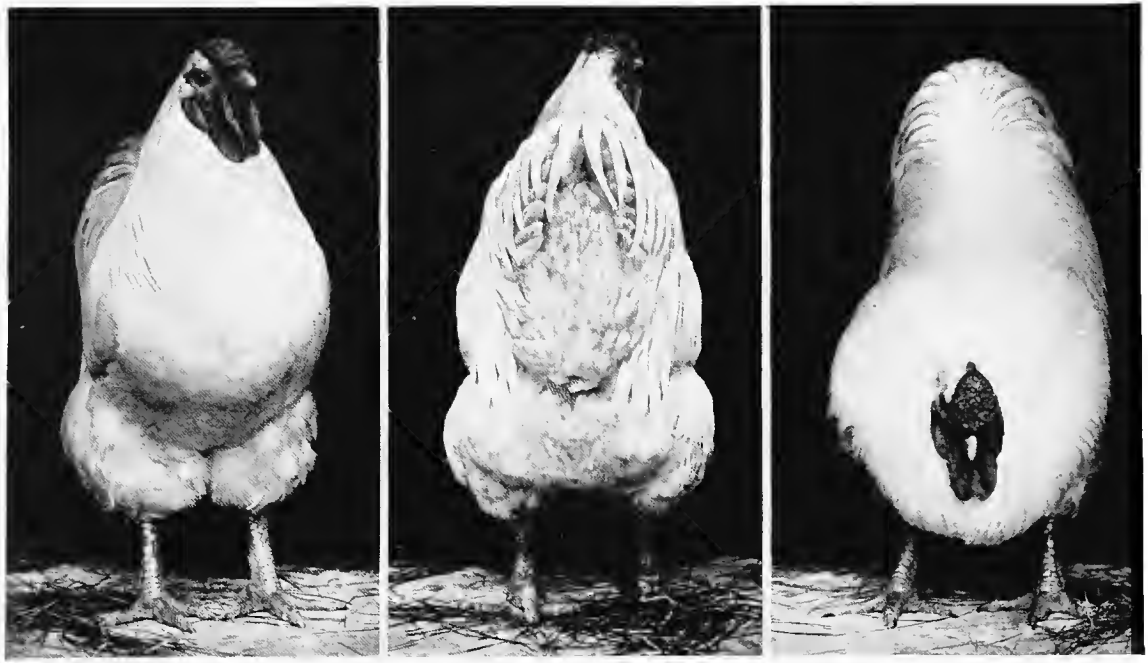


4

DEFECTIVE MALE SHAPE.

1—Carriage too upright. Comb coarse. Wings too far forward. Back too straight and level. Tail pinched. 2—Comb and head coarse. Wings carried too low. Back too long. Breast, body and fluff too shallow. Tail too full and long. 3—Too short and blunt in all sections. Tail not developed. Back and saddle carried too low. 4—General shape too short. Back extremely short. Breast flat.



1 2 3

GOOD QUALITIES OF WHITE WYANDOTTE MALES.

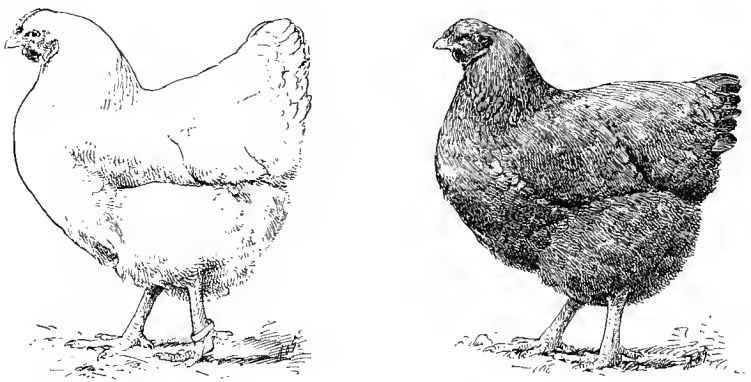
1—Good head points, good width and depth of breast and the proper position of legs and feet. 2—Rear of a well spread and well furnished tail, with about the right amount of fluff below. 3—A well shaped, well fitting comb, broad, well rounded back and saddle and smoothly finished tail. The subjects of these three photos were good, average exhibition males.

1 2 3

STANDARD AND DEFECTIVE MALE SHAPE.

1—Too broad and loose feathering on cushion and fluff. Split tail. Comb too broad, irregular and coarse. 2—Standard (correct) shape of back, tail and comb. 3—Crooked back. Wry tail. Pinched tail. Narrow body. Narrow beak and skull. Concave comb. Spike blunt and turned up.

PLATE 13.



1 2

DEFECTIVE FEMALE SHAPE.

1—Flat breast. Fluff carried too low. Back too short. 2—Neck too short and not making smooth connection at back of head. Back and tail too low. Legs set too far back.

female is too much after the fashion of a Cochin with its abundance of fluff.

Males are often of poor shape because they have not the proper plumage. The back may be flat because the plumage of the saddle does not build up a concave sweep to tail. This defect may be overcome by breeding from the blocky, well cushioned female, and this is where the full feathered type of female becomes valuable in the breeding yard.

A high tail in the male may be counteracted by breeding from low tailed females with well spread main tail feathers. A Wyandotte male tail poorly furnished with coverts is not representative of the best. Mate to such a specimen a female whose two top main tail feathers are long and who has an abundance of tail coverts which extend well out toward the end of her main tail feathers.

A fault of some males is long legs. This is a serious de-

PLATE 14.

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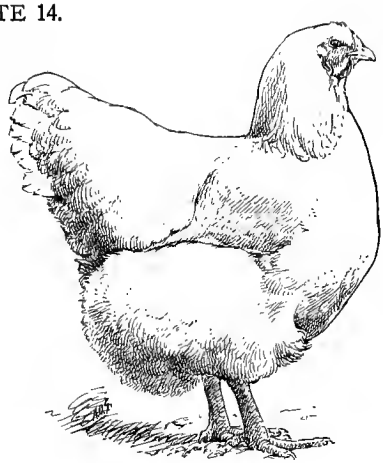

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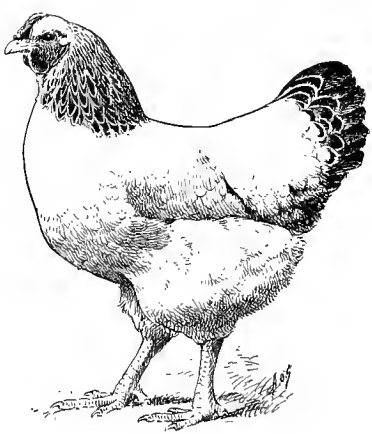


4

DEFECTIVE FEMALE SHAPE.

1—Low carried fluff and too full feather development, sometimes due to over-condition. 2—Large, coarse type. Lacks the typical Wyandotte curves. 3—Breast too low. Back extremely short. Wings low at the shoulders. 4—Back too long. Cushion not well developed. Body too long. Legs too long.

fect in a Wyandotte, and low set hens should be used to overcome the fault. Narrowness between the legs is a defect that is overcome with difficulty. While feathers may be bred to suit with some facility, it is not as easy by half to correct defective body formation such as narrowness between the legs or roached back.

The legs of a Wyandotte should be set well apart, under a wide body. This is characteristic of the typical Wyandotte of all ages, whether alive or dressed. It accompanies width of body. A narrow bodied bird may present a pretty profile but the Standard shows the importance of breadth in the Wyandotte by calling for a broad back. A bird of good proportions will present as complete a picture when viewed from above as when viewed from the side.

The Wyandotte breast should be full and well rounded. Flatness here may be due to poise or lack of feather development or actual shallowness of frame. In some breeds, breast development may be secured through length of feather, but Wyandotte breeders should aim to breed a fullness that is real, i. e., a full body formation.

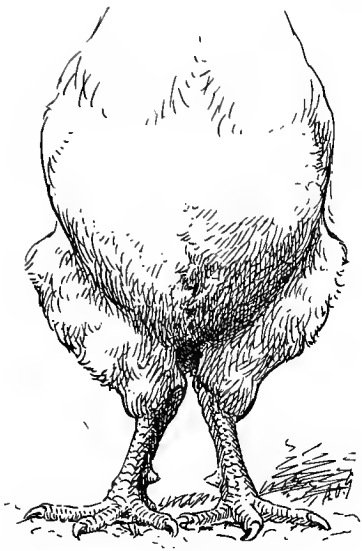
PLATE 15.

1 2

DEFECTIVE FEMALE SHAPE.

1—Poorly shaped cushion. Wings carried too high and not properly folded. Feathering too loose on forward body. Legs coarse and scaly. 2—Tail undeveloped. Body too short. Shanks too long.

PLATE 16.



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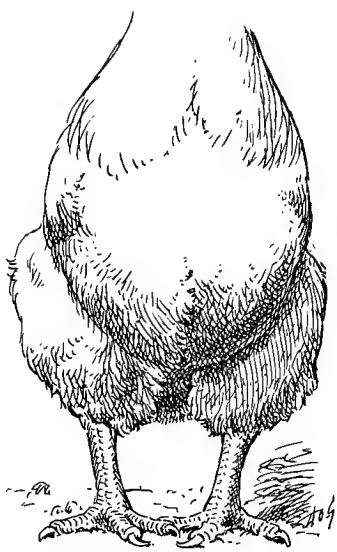

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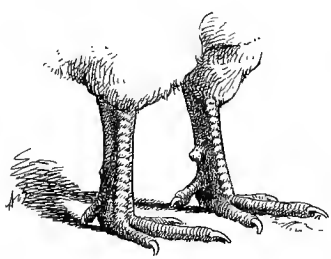
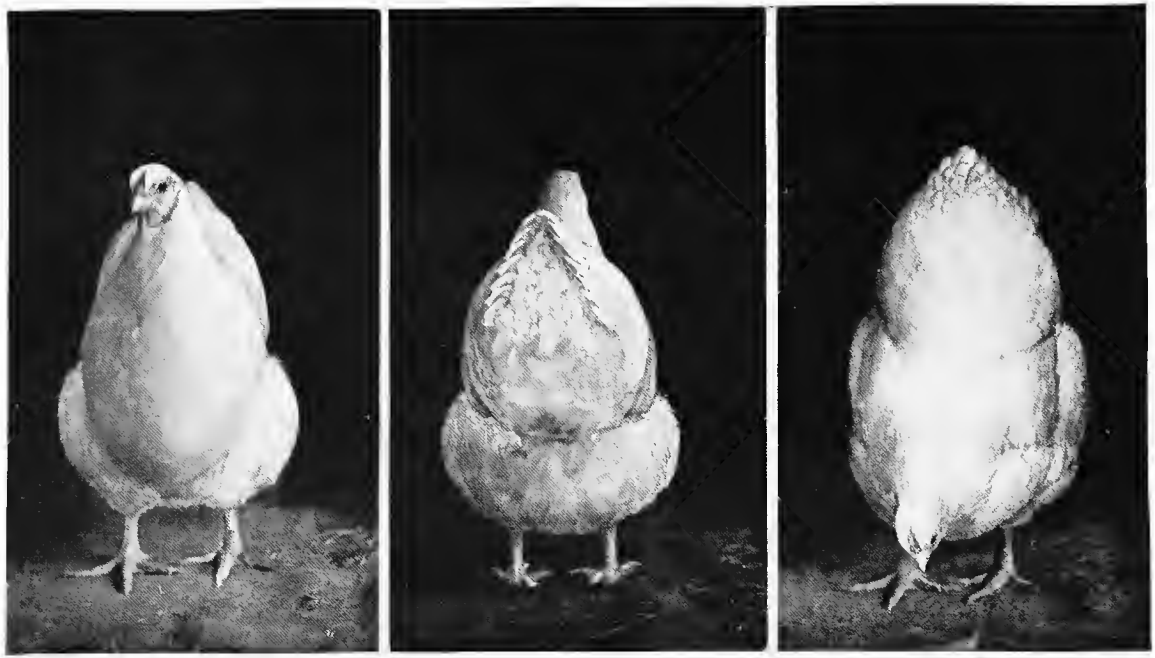


3

DEFECTIVE MALE AND FEMALE SHAPE.

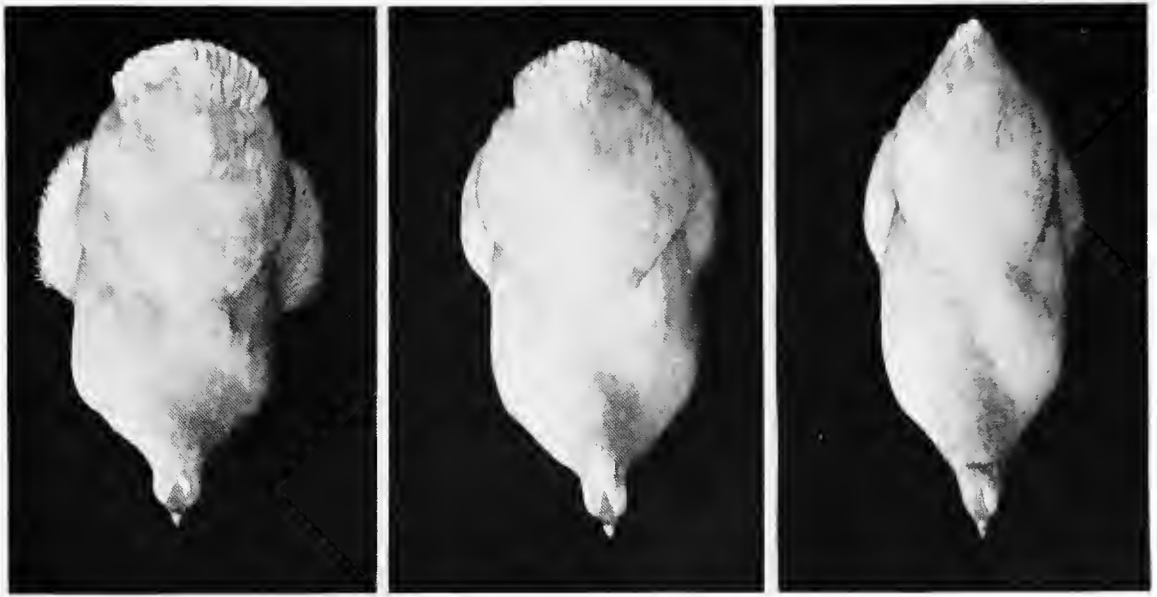
1—Knock knees. 2—Bow legs. 3—Ideal (perfect) legs and feet of male. The same qualities of roundness and fullness of shanks should also be cultivated in females.



1 2 3

GOOD QUALITIES OF WHITE WYANDOTTE FEMALES.

1—Good head points, good width and depth of breast and body and proper position of legs and feet. 2—Well spread and well furnished tail and about the proper amount of fluff below. 3—A broad, nicely shaped back, properly formed cushion which joins smoothly a well spread tail. The subjects of these three photos were good, average exhibition females.



1 2 3

BEST NATURAL AND DEFECTIVE WYANDOTTE FEMALE SHAPE.

1—Too wide and full feathering, giving a Cochiny appearance. Comb and skull too broad. Tail too widely spread. Fluff too loose. 2—Best natural shape, according to modern Standard requirements. 3—Too narrow and pinched in tail and body shape. Too tightly feathered. Comb and skull too narrow. Beak too long.

A Bird of Curves.—Every line of the Wyandotte should be a curve, so that when all the concave and convex lines are brought together we have a bird that is round in every section. This does not apply to the profile alone. The sides of the bird should be rounded also.

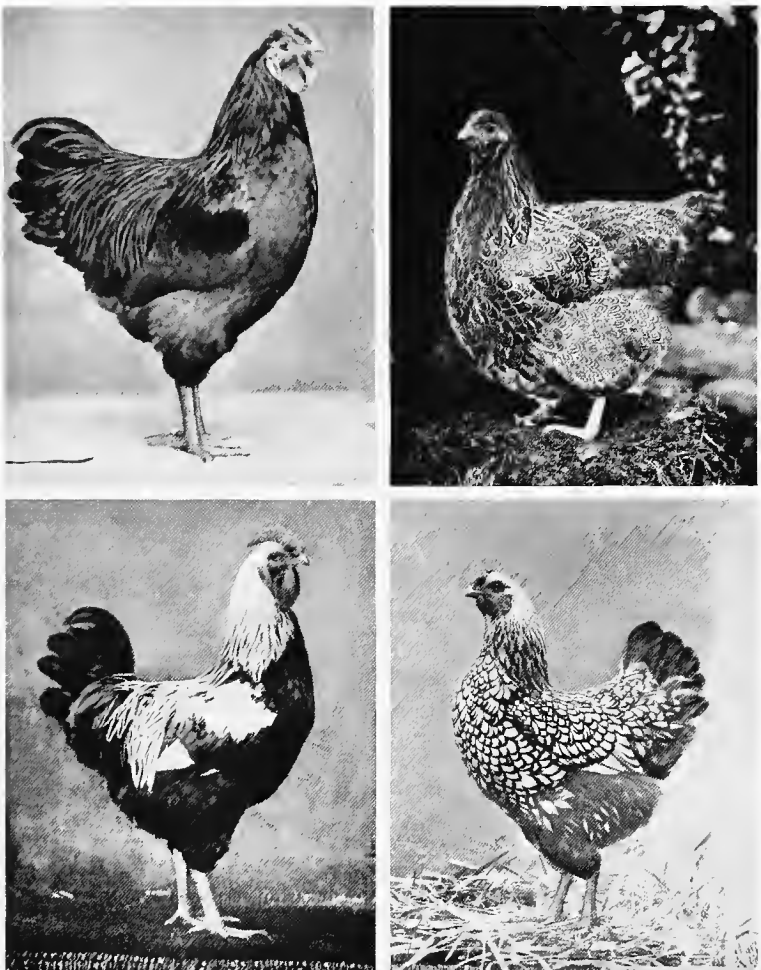
The surface of the bird, especially the female, should be smooth. Wing points that pinch in below the cushion destroy the smooth surface.

A Wyandotte's wings should not be composed of long flight feathers. If these primaries and secondaries are long the bird will be correspondingly long bodied, and the Wyandotte will approach the Plymouth Rock in type. The bow of the Wyandotte wing should be well rounded, and the fronts of the wings well covered with the sides of the breast plumage.

The wing points of the male should not show, for they should be well covered by the saddle feathers. Some males, however, especially cockerels, do not hold their wings up but drop the points down like a pair of swords. This spoils the side view of the bird for the underline of the wings should be almost horizontal.

These defects are mentioned that the breeder may consider them and try to select those birds for breeding that will correct existing faults and thus produce birds that will more nearly meet the requirements of the Standard. (F. L. P.)

PLATE B.



Winners at English shows, illustrating English Wyandotte type. Above, Partridge Wyandotte male and female. Below, 1st Silver Penciled Wyandotte cockerel, Dairy Show, and 1st Silver Wyandotte pullet, Crystal Place Show. See plate A, page 60.

SECTION II.

CHAPTER I.

STANDARD REQUIREMENTS FOR COLOR OF SILVER WYANDOTTES.

Disqualifications.

Shanks other than yellow. (See general and Wyandotte disqualifications.)

COLOR OF MALE.

Head.—Plumage, silvery white, each feather having a black stripe tapering to a fine point near its extremity.

Beak.—Dark horn, shading to yellow at point.

Eyes.—Reddish-bay.

Comb, Face, Wattles and Ear-Lobes.—Bright red.

Neck.—Hackle, web of feather lustrous greenish-black with a narrow edging of silvery white, uniform in width, extending around point of feather; shaft of feather, white; plumage in front of hackle same as breast.

Wings.—Bows, silvery white; coverts, white with narrow lustrous greenish-black lacings, conforming to the shape of feathers, forming a double bar of laced feathers across wings; primaries, black, lower edges, white; secondaries, black, lower half of outer webs, white with narrow black edgings wider at the tips, upper webs, edged with white.

Back.—Silvery white; saddle, silvery white in appearance, a black stripe through each feather, laced with white, conforming to shape of center; the black having a long diamond-shaped center of white.

Tail.—Black; sickles and coverts, lustrous greenish-black; smaller coverts, black, with diamond-shaped white centers, feathers laced with white.

Breast.—Web of each feather, white, laced with a narrow, lustrous greenish-black, sharply defined lacing, conforming to edge of feather.

Body and Fluff.—Body, web of each feather, white, laced with a narrow, lustrous greenish-black, sharply defined lacing, conforming to edge of feather; fluff, slate, powdered with gray.

Legs and Toes.—Thighs, web of each feather, white, laced with a narrow, lustrous greenish-black, sharply defined lacing, conforming to edge of feather; shanks and toes, yellow.

Under-Color of All Sections.—Slate.

COLOR OF FEMALE.

Head.—Plumage, silvery gray.

Beak.—Dark horn, shading to yellow at point.

Eyes.—Reddish-bay.

Comb, Face, Wattles and Ear-Lobes.—Bright red.

Neck.—Silvery white in appearance, with a black center through each feather, laced with white; shafts of feathers, white; feathers in front of neck same as breast.

Wings.—Shoulders, bows and coverts, each feather white, laced with a narrow, lustrous greenish-black, sharply defined lacing conforming to edge of feather; primaries, black, lower edges white; secondaries, black, lower half of outer webs, white with narrow black edging wider at tips.

Back.—Each feather white, laced with a narrow, lustrous greenish-black, sharply defined lacing, to conform to edge of feather.

Tail.—Black, the upper sides of the two top feathers edged with white; coverts, and smaller coverts, black with white centers.

Breast.—Each feather white, laced with a narrow, lustrous greenish-black, sharply defined lacing to conform to edge of feather.

Body and Fluff.—Body, each feather white, laced with a narrow, lustrous greenish-black, sharply defined lacing to conform to edge of feather; fluff, slate powdered with gray.

Legs and Toes.—Thighs, each feather white, laced with a narrow, lustrous greenish-black, sharply defined lacing, to conform to edge of feather; shanks and toes yellow.

Under-Color of All Sections.—Slate.

LACED WYANDOTTES.

COLOR REQUIREMENTS EXPLAINED.

THE color markings of the Silver Wyandottes are among the most beautiful ones to be found on domesticated races of poultry and at the same time they are among the most difficult ones for the breeder to produce and for the judge to properly value when adjudicating in the show room. Judges, as well as breeders, must have fixed ideals in their minds of Silver Wyandotte color markings, which must be based upon the Standard descriptions for color, by which all specimens handled by them are measured.

These ideals have undergone many changes in the past thirty or more years, the Wyandottes of the early eighties—as will be seen by the illustrations in the History of the Origin chapter in this book—appearing to be a distinctive race from the present Silver Wyandottes in color markings, the narrow, white centers of the heavily laced feathers of the females and solid black wing-bars of the males of the original type being supplanted by the larger centered, or Sebright, type of lacing in the males and females of today. But breeders and judges must follow the ideals of today, no matter what lingering thoughts of admiration they may still cherish of the fine points of the older types.

The Silver Wyandotte male, described and illustrated in the American Standard of Perfection of 1915 (Plate 1), does not exist in the flesh, but is the ideal to be worked for by the breeder. Cocks and cockerels have been bred and exhibited which approximated closely in one or more sections to this Standard color marking, but not in all, and probably none ever will. But with hens and pullets, the Standard ideal in color is more noticeably approached, in fact some nearly equal it in beautiful lacing, albeit not in type. The Standard illustration of the female Silver Wyandotte (Plate 2) conveys the advanced and accepted ideal in color markings, exhibiting

NOTE.—As the Golden Wyandotte has the same system of lacing as the Silver, except that the white of the Silver variety is replaced by golden bay in the Golden variety, the description of Silver Wyandottes alone is given here.

in a marked degree the beautiful Sebright form of lacing on the breast, back and wing sections.

The American Standard of Perfection describes a laced feather as follows: "White, laced with a narrow, lustrous, greenish-black, sharply defined lacing to conform to edge of feather." This clearly and unmistakably conveys to the mind the Sebright form of lacing, which was first adopted as an ideal by English breeders of Silver Wyandottes and, more recently, by progressive American breeders.

The wing-color markings present another problem for judges to solve when handling the large or open-centered Silver Wyandottes, for these are apt to exhibit primaries and secondaries which are gray and mossy instead of being sound in their black and white sections. Being invisible on the surface, as a rule, such defective wing feathers must not be severely handicapped, one point being sufficient in most instances, with either males or females. Mossy tail coverts are a much more serious defect as they are visible and destroy the harmonious color blending with the other sections. It is rare now to find such mossy feathers in the tails of modern exhibition Silver Wyandotte females, so that a handicap of two or three points is none too severe, when such are found.

Color of eyes must be carefully observed by the judge, as the Standard demands a reddish-bay eye and while a bay or pale brown eye is a minor fault, a pearl eye is a major one, which deserves a handicap of one point at least.

Color of shanks and toes is described simply as being yellow, so it may range from a light canary to a deep orange and rarely, if ever, is cut as defective, except where dark spots or dusky shadings on females may appear, which is the exception and not the rule in Silver Wyandottes.

Color Markings of Neck, Back and Wings of Males.—In Plate 1, the ideal Standard Silver Wyandotte male is illustrated, but the judge who expects to find such color markings in a living specimen will be disappointed for the obvious reason that the perfect specimen has not been bred and never will be.

The American Standard of Perfection, 1915 edition, describes the color of the neck and back as follows: "Hackle, web of feather lustrous greenish-black with a narrow edging of silvery white, uniform in width extending around point of feather; shaft of feather, white; back, silvery white, saddle silvery white in appearance, a black stripe through each feather, laced with white, conforming to shape of center, the black lacing along diamond shaped center of white."

The ideal Silver Wyandotte should have a silvery white surface color, from head to tail, over neck and back, extending over the wing-bows, with the outer tips of the striping in the hackle and saddle feathers showing below the white sur-

PLATE 19.

SILVER WYANDOTTE MALE COLOR.

Cockerel showing excellent wing-bar lacing, excellent secondaries, and fair primaries, as good as those of the average winner. Saddle shows considerable smuttiness on back. A straight cockerel-bred specimen from smutty backed females.

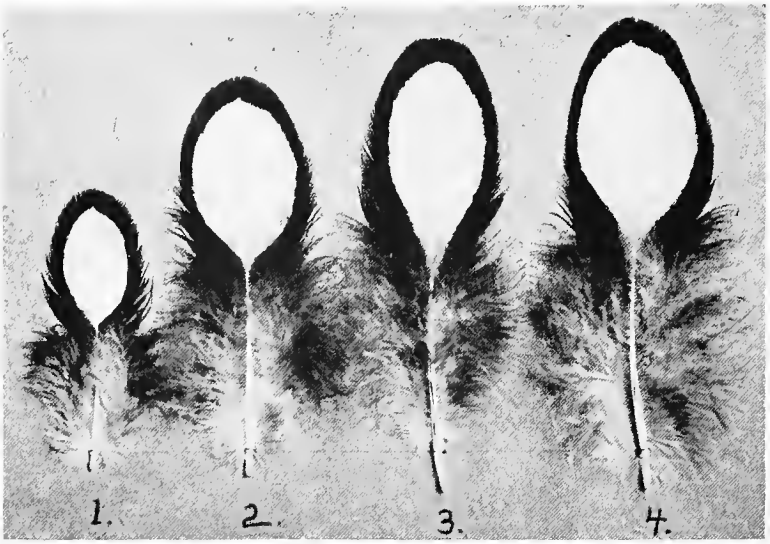
face or top color, except near the root of the tail where the shorter saddle feathers and lesser tail coverts should be more distinct in their markings. The wing-bar must consist of a double row of laced feathers and if an upper or third row

PLATE 20.

SILVER WYANDOTTE MALE COLOR.

Cockerel from a straight cockerel-bred line of winners, showing about the proper tone of under-color and about the correct amount of striping in hackle and saddle.

PLATE 21.



PROPERLY LACED FEATHERS.

1—Wing-front. 2—Wing-bow. 3—Wing-bow. 4—Wing-bar. The above illustrates the best quality that Artist Schilling has been able to secure. They represent nearly perfect coloring and distribution of color.

exhibits fine, crescentic lacing on the lower web of the feathers, all the better for it adds to the beauty of the wing-bar lacing. The secondaries are black on the upper web, and white on the lower, but the white should be laced with a very narrow band of intense, greenish-black, widening at the tip.

The primaries are black, the lower web being edged with white, but in the open-laced type of Silver Wyandotte males, solid black primaries are seldom found, which although a Standard defect, is not a serious one, which should be treated leniently by the judge.

The most serious defects in the surface color of the neck, back and wing-bows are brassiness and smut, and both must be severely punished when judging Silver Wyandottes by comparison or score card.

The beautiful Silver Wyandotte female feather chart, Plate 21, illustrates the approximate ideal in color markings reached by breeders of Silver Wyandottes in this country.

CHAPTER II.

BREEDING SILVER WYANDOTTES.

DOUBLE matings have been necessary to produce exhibition males and females in the past, and no doubt will be in the future, owing to present Standard requirements, which are antagonistic to the single matings. One of America's most successful breeders of Silver Wyandottes, J. C. Jodrey, several years ago expressed his views on this subject of double mating frankly, as follows:

"We are now breeding males having wing-bows composed of laced coverts with white, open centers, and the more freedom we have in this respect, the longer the centers will be which can be produced on the wing-bow and back of the female.

"Dark slate under-color in males is the worst feature we have to contend with, as we cannot expect to breed high-class females with it, but without it we suffer in the show room. It is fast driving breeders to double matings; for 27 years' experience convinces me that it is not possible to breed clean backed females with oval centers from males with dark slate under-color and, more than that, if continued for any length of time, the Silver Wyandottes would revert back to dark heavily-laced ones of the 90's.

"Give us a free hand on under-color and in a few years males can be produced with surface color better than anything seen today; and high class females also from the same mating.

"A sound surface color in males and dark slate in females, is all we need to retain color in both sexes.

"The first hen at Madison Square Garden and Boston this past season (1909) very nearly approached the ideal, and was in some respects in advance of the Standard. She was perfect in type, uniformly laced throughout, the lacing of lustrous black around oval centers of clean white. The head points were perfect, the neck finely arched with Standard colored hackle. The centers of the back were large and oval, growing larger as the saddle rose to the well spread black tail; the secondary tail coverts black with almost a perfect center.

The breast was a revelation from the throat down, every feather strongly laced. The wing-bars were all that could be desired."

PLATE 22.

FEATHERS OF FIRST BOSTON PULLET, 1909.

Top row, beginning at left, the feathers are taken from the following sections: Neck, shoulder, side of breast. Lower, from left to right, top of cushion or back, second bar of wing and body.

It will be noted that the dark slate under-color objected to by Mr. Jodrey is not required by the present Standard.

In Fig. 22, the feathers of the first Silver Wyandotte pullet at Boston in 1909 are reproduced, and which at that time approached most closely to the Standard color markings, a pullet Mr. Jodfrey considered the best he ever bred.

In the feather chart (Fig. 23), the feathers of a pullet-

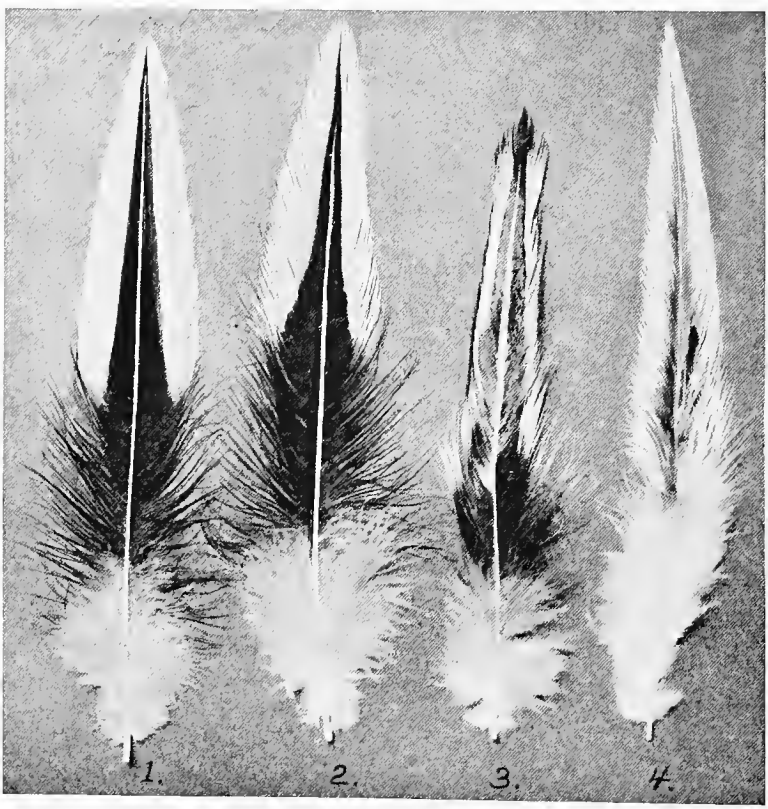
PLATE 23.

FEATHERS OF PULLET BREEDING MALE.

The above feathers were taken from the following sections: On the left, neck hackle; center, first step or row of wing-bar; right, back or saddle. It will be noticed that the long, diamond shaped center is far more pronounced in hackle than in the saddle feather in pullet-breeding males.

breeding male are illustrated. Mr. Jodrey who furnished these feathers writes: "They are from a male we must use for breeding pullets. We can produce as good wing lacing on males as on females." It was a male of this form of color markings, mated with a Standard colored female which produced the Boston pullet of 1909.

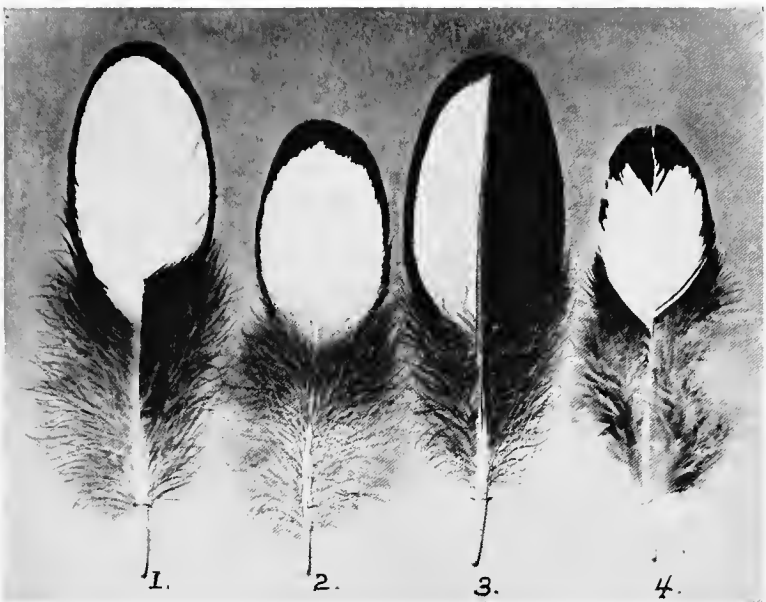
PLATE 24.



SILVER WYANDOTTE MALE HACKLE.

1—Idealized. 2—Best natural. 3—Too dark and smoky edging, defective stripe. 4—Too light in color and poor stripe.

PLATE 25.



SILVER WYANDOTTE MALE WING-BAR.

1—Idealized. 2—Best natural. 3—Old style. 4—Defective. No. 1 represents an idealized wing-bar feather. No. 2 shows the best quality marking found on the best specimens of the present period. No. 3 illustrates the style demanded by the 1910 Standard. No. 4 shows the style of marking required by the Standard in the period of 1886.

To breed high-class, exhibition females, select hens or pullets as near the Standard color markings as possible, darker or more heavily laced, rather than lighter or less strongly or widely laced. Hens which have molted in with clear centers are preferable to pullets. The male to mate with such females should be of the best type available. Never mate two birds of the same type unless both are good; the surface color of the cock, or cockerel, must be as clear and bright as possible, the black lacing being narrower and more intensive, the white oval center longer than in the breast and wing coverts of the females. Dark slate under-color in the males should be avoided.

In fact the 1915 American Standard of Perfection no longer demands "dark slate", but calls for slate in the under-color. Slate is the proper shade of color, so that dark slate or white should be avoided, although white is preferable from a breed-

PLATE 26.

SILVER WYANDOTTE MALE WING PRIMARIES.

1—Idealized. 2—Best natural. 3—Defective.

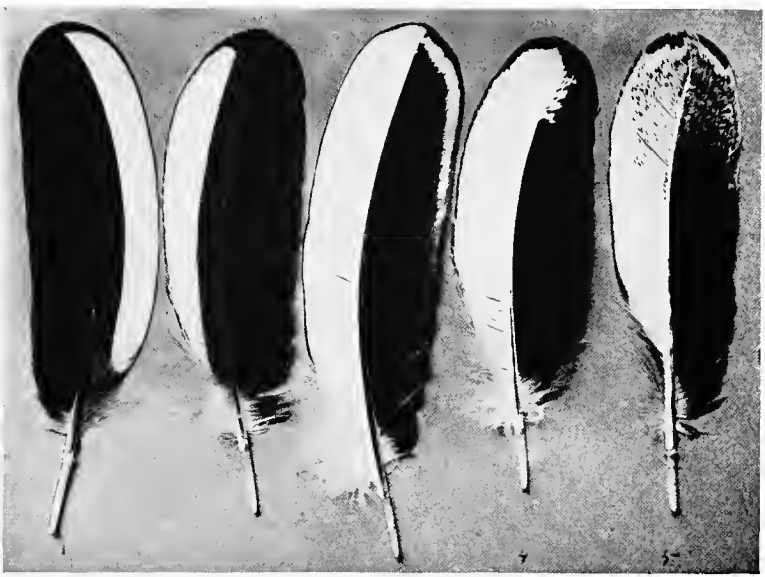
ing standpoint. Do not expect to find the long, diamond shaped white centers in saddle or lesser tail coverts, nor the black stripe in the hackle. The female will take care of the hackles.

For breeding exhibition males, select a cock or cockerel of the best available typical form or shape and as near to the Standard color requirements as possible. Such a male should possess strong hackle, dark under-color and long, diamond-shaped centers in the saddle. The comb should be of medium width, but not too narrow; a reddish-bay eye is most desirable. The tail should be carried low, be well spread and black. With such a male, mate females which have good head points, strong hackles, well-laced breasts, strong wing and tail color and are good in type. Such a mating will produce good results, especially in preserving a stronger undercolor in the

males, although the light shade now allowed by the Standard, and favored by breeders, will admit of using a male with slate under-color, which should prove of great benefit to breeders as well as Silver Wyandottes.

Greater latitude in under-color will also assist materially in making single matings of Silver Wyandottes a practical instead of a theoretical possibility.

PLATE 27.

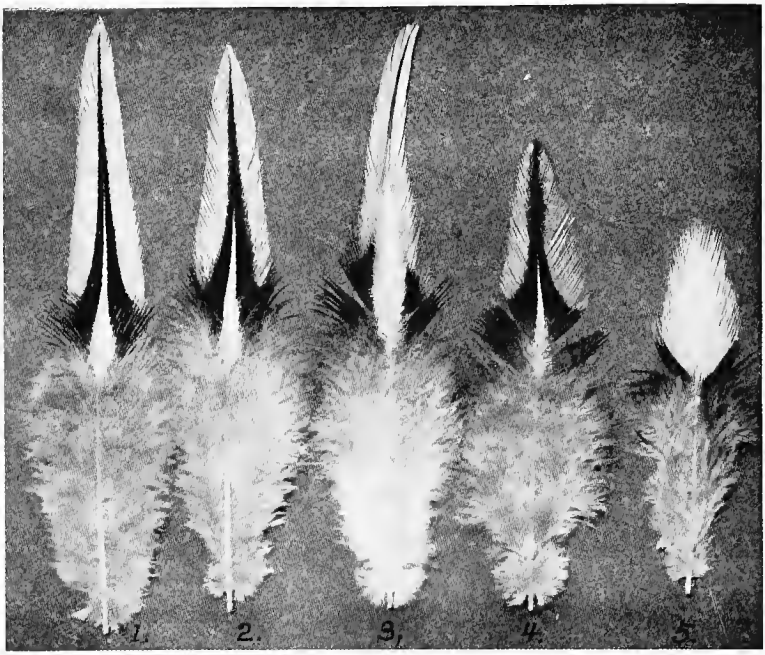


SILVER WYANDOTTE MALE AND FEMALE SECONDARIES.

1—Idealized male feather. 2—Average male feather. 3—Defective male feather. 4—Average female feather. 5—Defective female feather.

Although the Standard requires a perfect male or female secondary feather to show only about half of the outer web white, it is found that some of the best specimens possess secondaries that have the lower half of the feather entirely white except the extreme lower edge, which is edged with black.

PLATE 28.



SILVER WYANDOTTE MALE SADDLE AND WING-BOW.

1—Idealized. 2—Best natural. 3—Too light, lacks strip. 4—Too dark, smoky tips. 5—Best natural wing-bow.

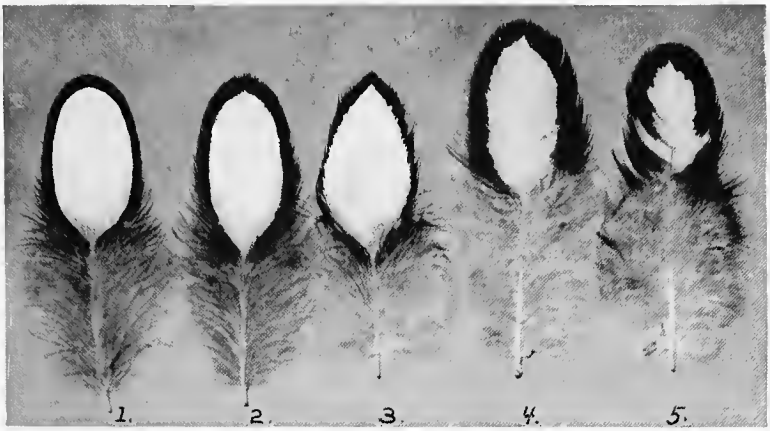
PLATE 30.

HEN FEATHERED SILVER WYANDOTTE MALE.

1—Breast. 2—Wing-bow. 3—Saddle. 4—Tail covert. 5—Body fluff.

The above group represents feathers taken from a Silver Wyandotte male bred by Ira C. Keller, who to produce Silver Wyandotte pullets with open centers and round lacing has created a strain in which the males have taken on the female style of plumage in all sections except hackle. These males do not develop this characteristic until they are two or three years old.

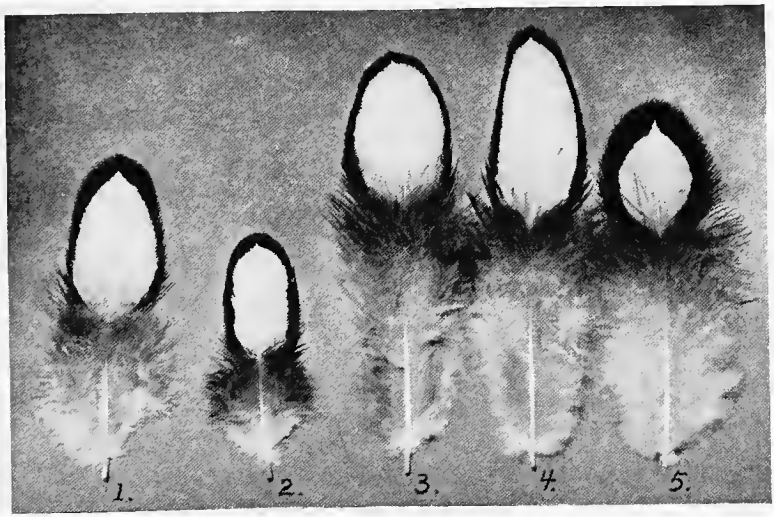
PLATE 29.



SILVER WYANDOTTE MALE BREAST.

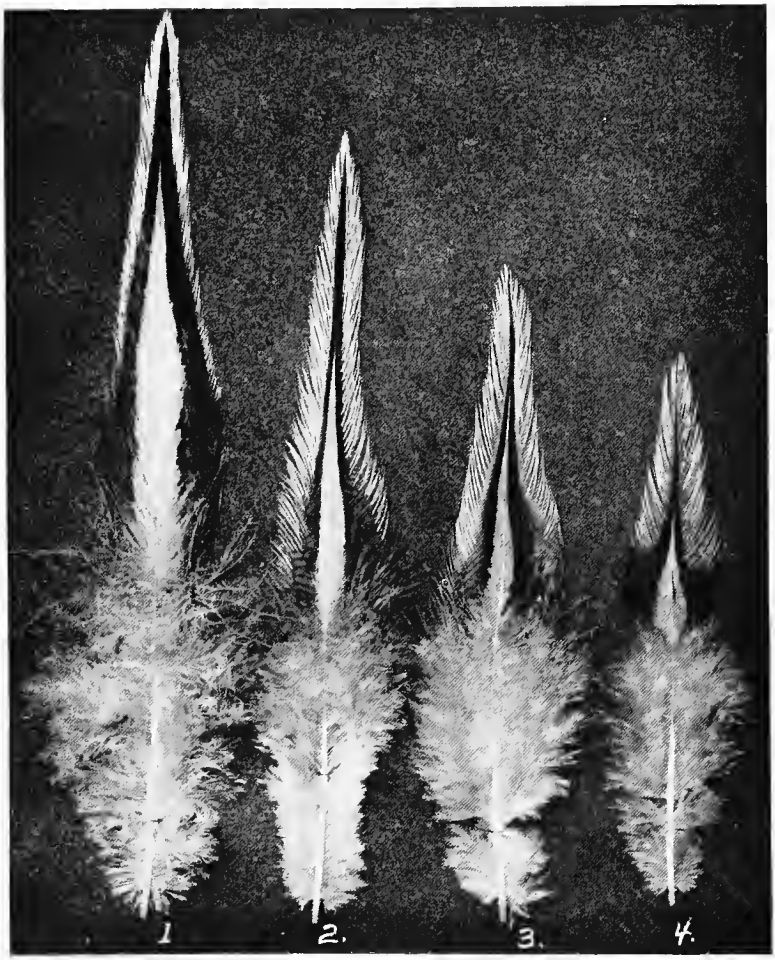
1—Idealized. 2—Best natural. 3—Defective, diamond point. 4—Defective, too heavy lacing. 5—Defective, irregular lacing.

PLATE 30.



Description on opposite page

PLATE 31.

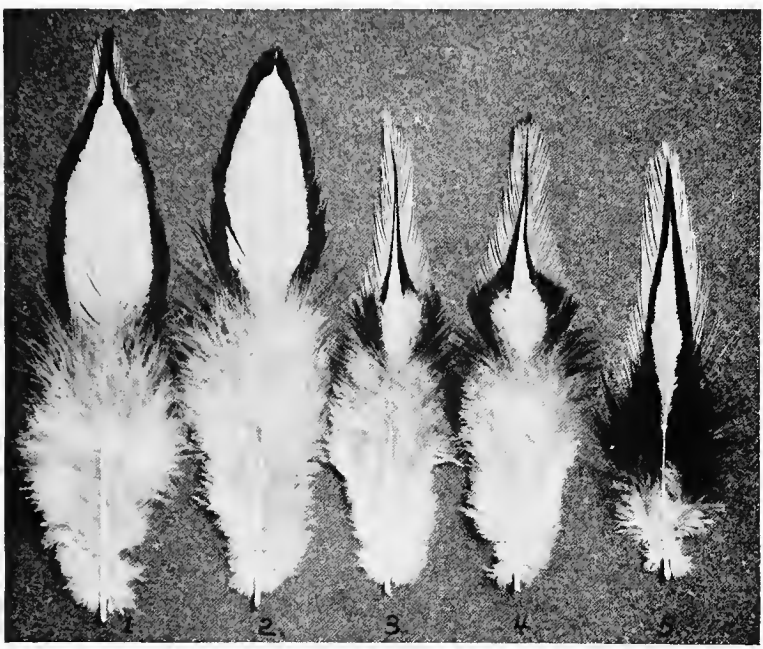


SILVER WYANDOTTE PULLET BREEDING COCK.

The above feathers were taken from a winner at one of the best shows and although his owner regards him as one of the best pullet breeders, he is also of exhibition quality. These feathers show considerable white center striping but not so extreme as that shown in Figures 1 and 2 of Plate 32, which are from a pullet breeder of a different color

type. The present Standard calls for a "long, diamond shaped center of white," but the average exhibition male is not as open laced as is shown in these feathers. These feathers are of only average quality, as they seem to lack density of color in the black stripe.

PLATE 32.

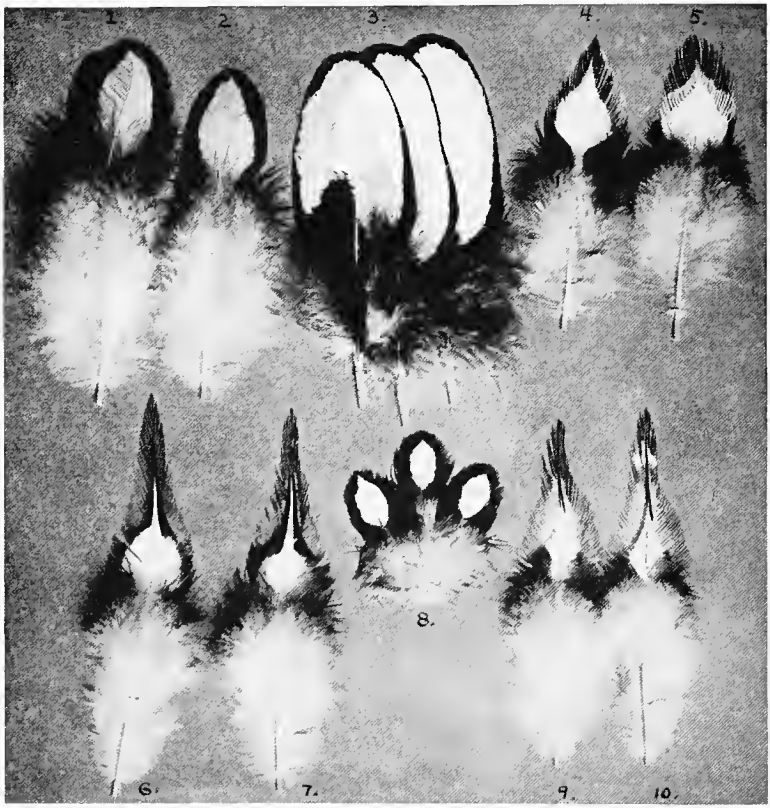


SILVER WYANDOTTE PULLET BREEDING COCKEREL.

1 and 2—Saddle feathers at juncture of saddle and tail. 3 and 4—Feathers at top of back adjoining saddle.

The above feathers represent pullet breeding qualities from a strain that has been bred by extreme double matings. Although this male is mossy and sooty in top color, he is not so black and smoky as the one whose feathers are shown on Plate 31 and which is another type of pullet breeding. Both these males show wide open white centers, the only material difference being that one shows more black and brown in surface. Figure 5 shows a hackle feather that is considerably more open centered than the Standard requires, but this is a desirable pullet breeding quality.

PLATE 33.



SILVER WYANDOTTE MALE PULLET BREEDING QUALITIES.

1—Fluff. 2—Breast. 3—Wing-bar. 4—Shoulder. 5—Wing-bow. 6—Saddle. 7—Back. 8—Hock. 9—Hackle. 10—Hackle.

The above feathers were taken from a rather short feathered pullet breeder.

PLATE 34.

PULLET BREEDING SILVER WYANDOTTE MALE.

1—Between wings on back. 2—Saddle. 3—Saddle at base of tail. 4—Wing-front. 5—Above wing-bar. 6—Breast. 7—Body fluff. 8—Hackle. 9—Feathers from two winning pullets' saddles, these pullets sired by the male from which the top row of feathers were taken.

Regarding the above mating J. C. Jodrey wrote: "Nearly every pullet from this mating is absolutely clear all over, beautifully laced and nearly all of good color. Some of them have dark hackles which was no fault of the cockerel but came from a previous mating. I have known for years that such a cock or cockerel will breed clear backs but have kept trying the clear ones for the reason that I would not dispose of my surplus cockerels unless they had clean tops. Having demonstrated a clean hackle, saddle and silver top in males cannot be bred from an exhibition pullet I now want to show that such feathers as shown above will produce the best colored and cleanest laced pullets and hens."

PLATE 35.

PULLET BREEDING MALE COLOR.

Pure pullet breeding Silver Wyandotte cock showing wide open breast lacing, lacing on hocks and wing joints. This shows that in a male of this type the wing flights are not very strong in color of black markings. The object is to get a male that is open in lacing and has the white as white and the black as intense as possible. Such males are usually mossy on back and saddle as shown on Plate 36.

PLATE 36.

PULLET BREEDING CHARACTERISTICS.

On Plate 36 is shown a pullet breeding Silver Wyandotte male. Note the open white centers on the saddle near its juncture with the tail. The feathers of these males are usually very pointed and narrow at their ends and the body of the feather is wide and round in the center, showing the white open center. Much of these white centers lie under the surface of the plumage as shown in the photo. There is considerable brown and brassiness on the shoulders and back of this male, which is characteristic of males from extreme pullet matings.

PLATE 37.

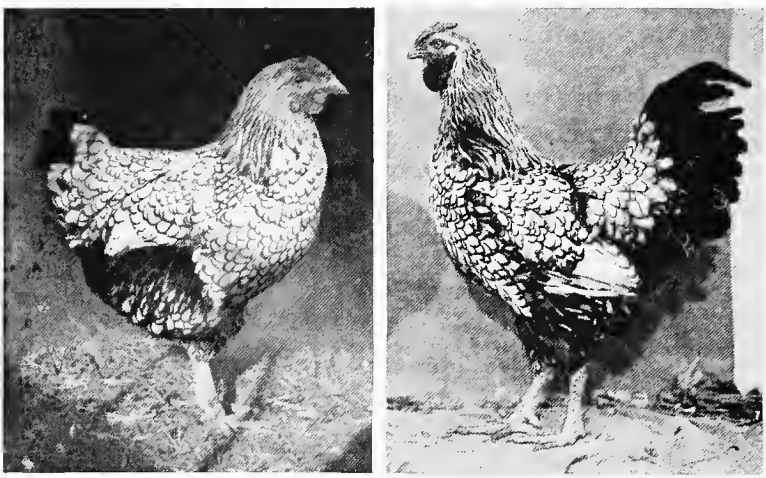
MEDIUM MALE COLOR.

Plate 37 shows the saddle of a cockerel from a strain that is not bred to extremes in cockerel and pullet matings. The breeder recognizes that his best pullet-bred males are those which show open centers in saddle feathers that resemble those found on the male which is pure pullet-bred. From this line have come males that have developed into hen feathered specimens. This male also shows some smut and brassiness like the pure pullet-bred male on Plate 36.

INFLUENCE OF ENGLISH SILVER WYANDOTTE BLOOD.

That the lacing on American Silver Wyandottes has been greatly improved by the infusion of English Wyandotte blood is an established fact. But this foreign blood is after all nothing more than that of the original American Silver Wyandotte, refined by the skill and art of English breeders. This is clearly substantiated by J. M. Philipson in his letter, which appears in the History of the Origin of the Wyandotte on another page of this book.

PLATE 38.



EXTREME OPEN LACED SILVER WYANDOTTES.

The above hen was imported into this country from Australia and was remarkable for her round, regular lacing. Practically no diamond points are noticeable in her plumage. She was used for pullet breeding and produced a few excellent specimens before she died in 1916, when she was six or eight years old.

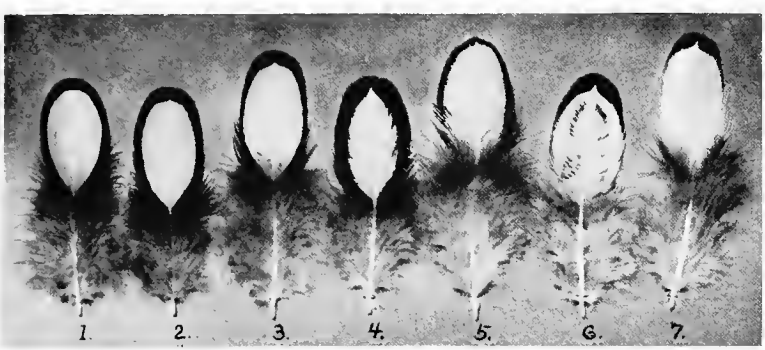
The male is a good illustration of a hen feathered pullet breeder. This cockerel is from a strain that has not been bred to extremes for cockerel and pullet matings. Specimens of this sort have sported from this strain and have been used to produce exhibition pullets.

PLATE 39.

SILVER WYANDOTTE FEMALE FEATHERS.

Four feathers taken from center of cushion, illustrated the development of lacing during the past twenty-five years. 1. The small diamond center of the period of 1888. 4. The modern open center of the present day.

PLATE 40.



SILVER WYANDOTTE FEMALE BREAST.

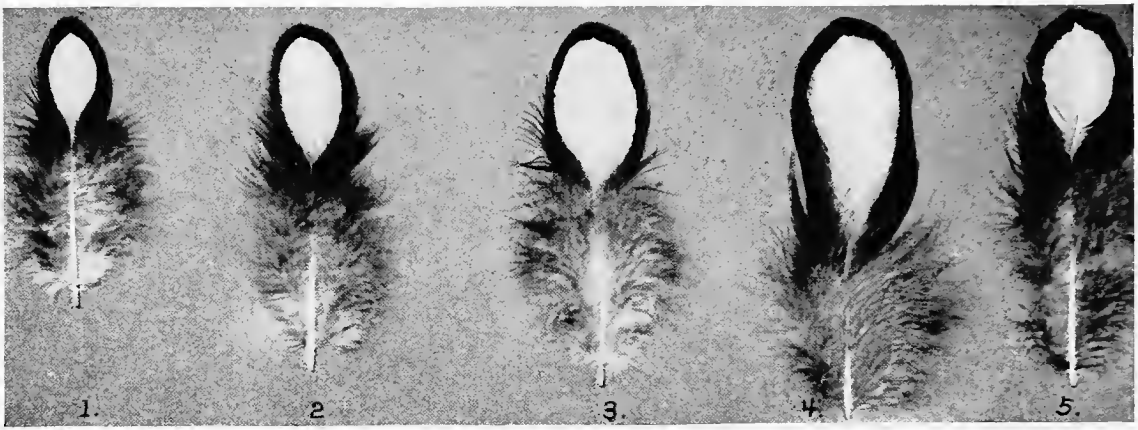
1—Idealized. 2—Best natural. 3—Too narrow side lacing. 4—Too heavy lacing, black breaking into the white and diamond point. 5—Frosted edge. 6—Peppered center. 7—Spangled feather, lacing not extending around the outer edge.

PLATE 41.

DEFECTIVE SILVER WYANDOTTE FEMALE FEATHERS.

1—Center destroyed by black and uneven lacing. 2—Penciled feather and feather with diamond point at both ends of the white center. 3—Irregular lacing and poorly shaped center. 4—Center destroyed by stippling. 5—Too small and uneven center.

PLATE 42.



BEST NATURAL FEMALE FEATHERS.

1—Back between shoulders. 2—Top of cushion. 3—Side of cushion. 4—Tail covert. 5—Body fluff.

The above five feathers represent what may be considered the best found in present day specimens, approaching present day Standard requirements.

Many importations were made by American breeders of Silver Wyandottes in the past twenty years, one noted Silver Wyandotte breeder importing his first English stock in 1897 from Cornwall, England, which improved the lacing and brought out the first laced wing-bar seen at the Boston show. Pullets from these English-American bred strains produced winning pullets a few years after and at the Boston show cockerels of the same blood won first and second over some of the best pure-bred American birds.

The Silver Wyandotte, a native of America, when exported to England, returned with an entirely new set of feathers and more beautiful than American breeders have been able to produce. The typical form or shape of the breed, in most instances, was destroyed, but in more recent years it is being

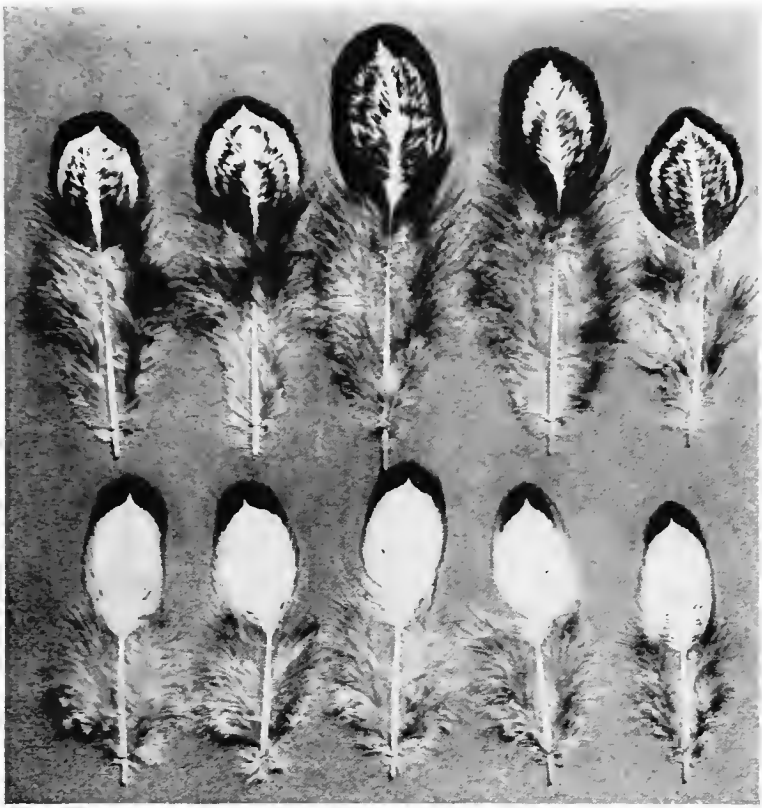
PLATE 43.

FEATHERS ILLUSTRATING REVERSION.

1—Back. 2—Wing. 3—Breast.

These three feathers furnish striking illustrations of "throwing back," or reversion to ancestral blood lines, especially because they were plucked from a Silver Wyandotte hen twenty-five years after the breed was standardized. The hen later molted and put on a new coat of feathers which were well laced and had clear centers.

PLATE 44.



FEATHERS FROM COCKEREL BREEDING HEN.

Top row, back and saddle feathers. Bottom row, breast feathers.

Females having plumage marked like the above feathers, when mated to exhibition males of this particular line, have produced winning males at New York and Boston repeatedly. This line of breeding is producing clear top-colored males showing no mossiness on back. The hackles are clean and well striped. While the back, cushion and wing-bow of the cockerel breeding female are full of color and too dark, the breast is very light; in fact the feathers shown here are simply spangled on the ends. This characteristic is claimed by breeders of this line to produce open lacings in the breast and body fluff of the males.

restored gradually abroad, but far more rapidly in the United States and Canada.

The English method of selecting breeding males and females is directly responsibile for the improvement in lacing, so evidently this entirely different system of mating is the correct one if the highest type of color markings in females are to be obtained. The English Wyandotte breeders do not look for the 95 point male with black hackle and saddle striping and silvery top color. They want a male laced on back and saddle and pullet-laced on wing or shoulders and breast, and if the hackle looks smoky, all the better.

The females mated to such a male must be as free from frosty or white edging as possible. From such a mating exhibition males cannot be produced. The greatest fault with American Silver Wyandotte males today is that English blood has gone into about every part of the country and breeders persisted in trying to breed exhibition males from such a mixture of blood with the result that very few males are seen which are free from smut on hackle, saddle and back.

The old, native Silver Wyandotte will produce at once, far better than any other blood in the world, the hackle and saddle striping and top color, if mated properly. One old and successful Silver Wyandotte breeder, in summing up his experience with English Silver Wyandottes remarks:

"I have bred English stock since 1896, but never gave up my old native line and never crossed the two lines excepting for the production of females and to improve shape. I claim now and always have that open and uniform lacing on females and freedom from white edging cannot be produced from a Standard colored male.

"Then why not divorce the two lines, breed from the high

COCKEREL BREEDING FEMALE COLOR.

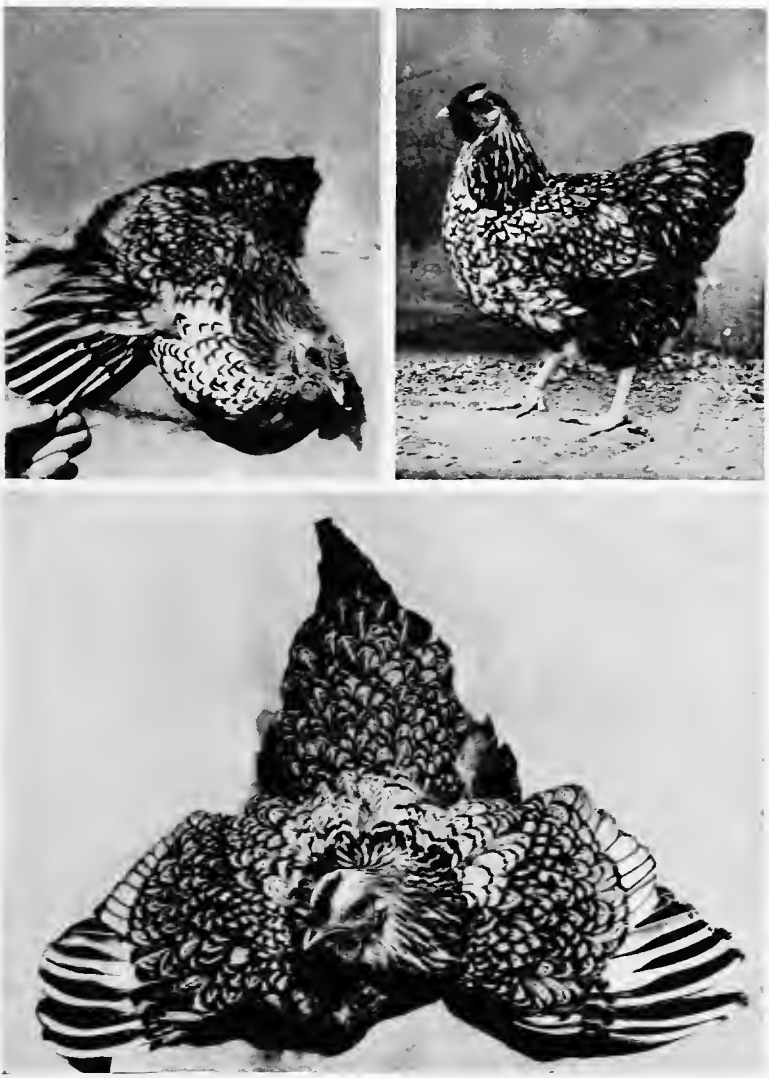
(See Plate 45)

Upper left shows breast and wings of a cockerel breeding female. Note how the breast lacing runs out at the sides of each feather and the solidly marked wing primaries.

Upper right shows a cockerel breeding female illustrating type and fluff color marking.

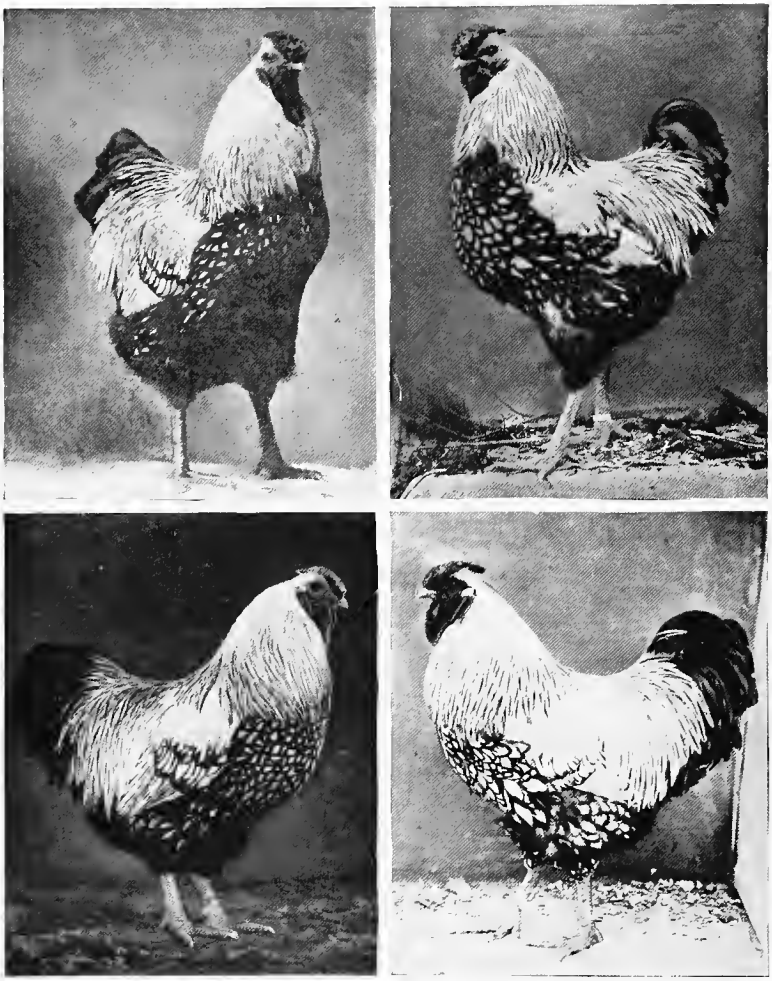
The picture below shows a cockerel breeding female illustrating characteristic color and markings of back, wings, etc. This female is from a line in which extreme double mating is practiced.

PLATE 45.



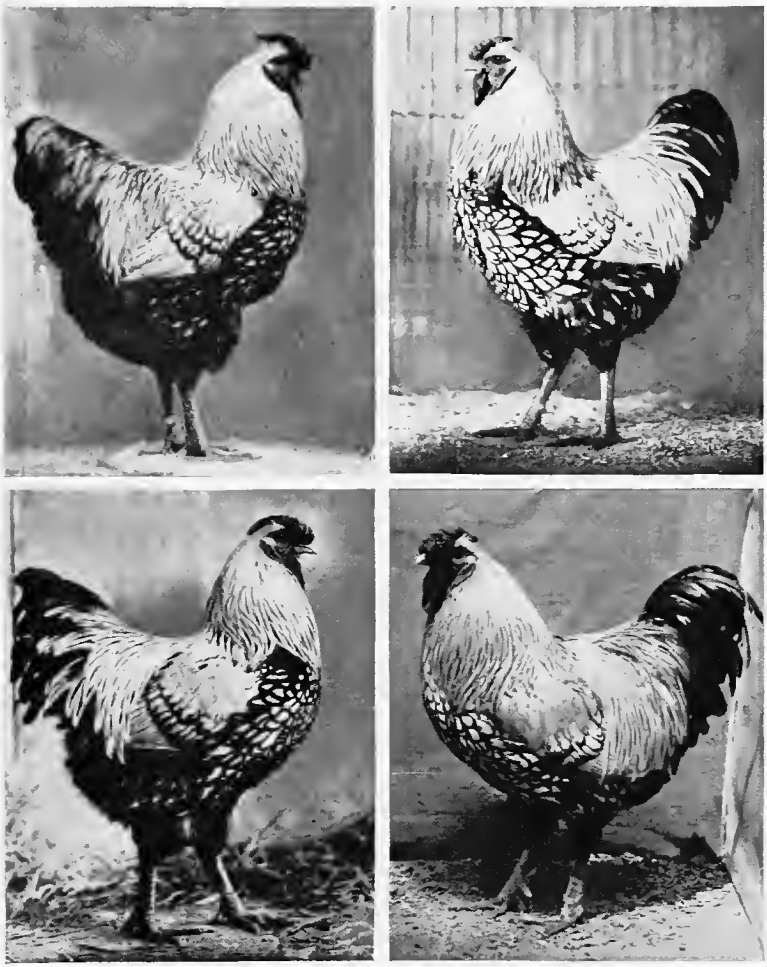
Description on opposite page

PLATE 46.



Four photos showing the development of Silver Wyandotte males since 1900. Upper left, 1st pen cockerel, Boston, 1901. Upper right, 1st cockerel, Buffalo, 1907. Lower left, 1st cock, Madison Square Garden, N. Y., 1909-10. Lower right, 1st cockerel, Madison Square Garden, N. Y., 1915-16.

PLATE 47.



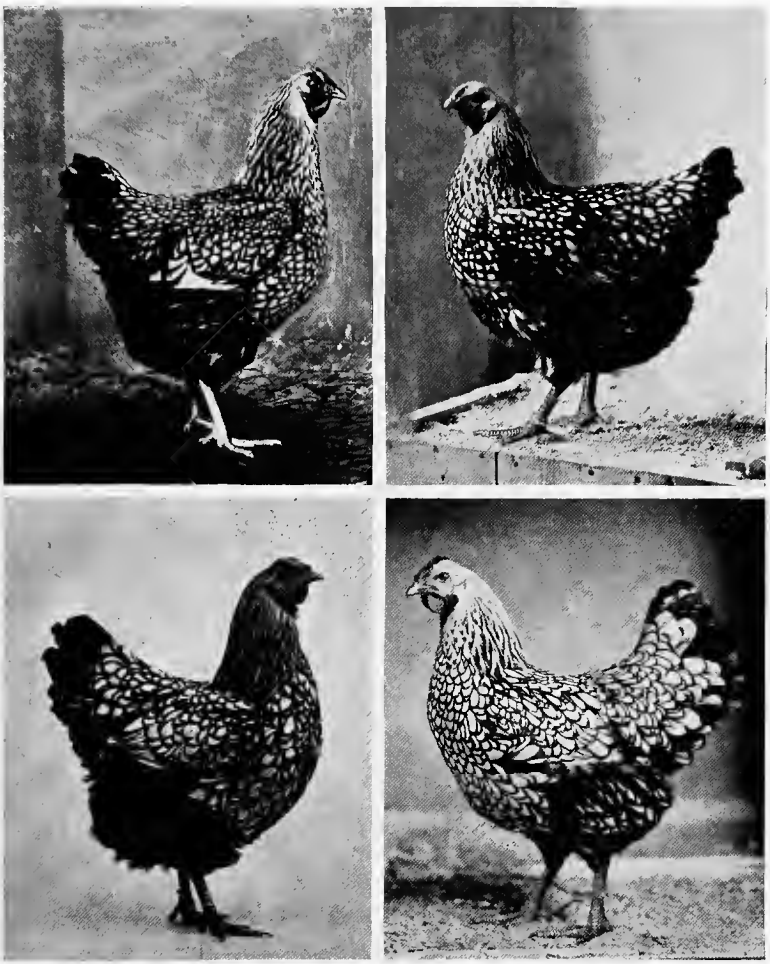
The above photos illustrate four generations of one family of exhibition males, illustrating male cockerel breeding qualities. Upper left, 1st at Boston, 1901. Upper right, 1st at Madison Square Garden, N. Y., 1908-9. Lower left, 1st at Boston, 1912. Lower right, 1st at Madison Square Garden, N. Y., 1915-16. These are four of the six males from this family that have won at New York and Boston from 1901 to 1915.

class silver top-color males for exhibition males and use the less pretentious male for pullet-breeding, provided he is laced on back, saddle and wings, with a breast as free from edging as possible and a hackle lacking a distinct black stripe. Such a male will produce uniform lacing and clean backs on females.

"Keep both lines separate, do not cross over and in a few years the breeder will find himself in the middle of the road."

The above advice on breeding Silver Wyandottes, especially where it refers to the English method of selection of breeders, given by a past master in the art of breeding exhibition Silver Wyandottes in this country, briefly points out the road to success for the intelligent and careful breeder to follow. (J. H .D.)

PLATE 48.



Four females showing the development of Silver Wyandottes since 1899. Upper left, 1st hen, New York, 1899. Upper right, a winner at Chicago, about 1905. Lower left, winner at Madison Square Garden, 1909. Lower right, 2nd pullet at Chicago Coliseum Show, 1914. This last named pullet shows wonderful development of the Sebright style of lacing.

CHAPTER III.

ORIGIN OF GOLDEN WYANDOTTES.

CONCERNING the origin of this variety of the Wyandotte family we quote the following, by F. W. Proctor, from "The Wyandottes," published by Reliable Poultry Journal Publishing Company in 1910:

"In its most approved strain, which from its superior qualities was used to feed the blood of all others, the Golden Wyandotte is a lineal descendant of the original Ray-Whittaker strain of Silvers. The foundation of this stock was laid in 1880, when Joseph McKeen, of Omro, Wisconsin, crossed Silver Laced females purchased from Mr. L. Whittaker with a cockerel of composite blood, the account of which is best told in the originator's own words, quoted from Joseph Wallace's book upon the Wyandottes published by the Ferris Publishing Company (Albany 1891):

" 'A few years prior to the time I began to breed the Golden Wyandottes, I was breeding Pea-Comb Partridge Cochins, and Single-Comb Brown Leghorns; I also procured some eggs of the Rose-Comb Brown Leghorn variety from T. J. McDaniel, South Hollis, Me. He did not claim that they were pure-blooded Leghorns, but were crossed with a fowl, about the same color, that had a rosecomb and red earlobes, called "York County" fowls. I had these Partridge Cochins, Brown Leghorns and Rose-Comb Leghorns together, and selected those that had the best rose-combs, cleanest yellow legs and reddest earlobes. I selected a large cockerel that had a good rose-comb, clean yellow legs, red earlobes, and plumage about the same as a Partridge Cochin male. I bred this cockerel on some mongrel Buff Cochin hens that came into existence in the following way: Some time about 1872 or 1873, I was breeding some fine Buff Cochins and Golden Sebright Bantams. I let a family named O'Neil have some eggs of both these varieties; they raised the chickens and let them run together with some medium-sized common fowls on a farm.

" 'A few years after this, I found, with the O'Neil family, Buff Cochins with yellow legs, rose-combs, light leg feather-

ing, and a slight show of lacing on some specimens. I bred the Partridge Cochin-Brown Leghorn cockerel, above mentioned, on some of these Buff hens, and the result was some cockerels of a very deep buff, all but the tail, and that was a shiny green black, with rose-comb and clean, yellow legs. Dorsey Smith, agent for the American Express Company, at Wausau, Wis., bought one of these cockerels of me about ten years ago, and has bred a number like him since. The pullets were of a kind of buff color with more or less penciling or lacing.

"'My farm I called "The Winnebago Poultry Farm" and as these fowls were raised there, I called them "Winnebagoes." Now, from what I have written, we deduce these facts: that the Winnebagoes, the top cross to produce Golden Wyandottes, have Pea-Comb Partridge Cochin, Rose and Single Comb Brown Leghorn, Buff Cochin, and I have reason to believe, a very little Golden Sebright Bantam blood in them, no Game blood, as some suppose. I believe that the Golden Wyandottes in the east have Game blood in them.'"

"From the foregoing account, it is apparent that these 'Winnebagoes' bore a strong resemblance to the Rose-Comb Rhode Island Red of today.

"A second breeding to the Silvers, thus constituting the stock of one-fourth Winnebago blood, further enriched the plumage, the Partridge Cochin element of their extraction doubtless contributing to the perfecting of their pattern. The certainty of the Golden Sebright bantam having had a part in the Winnebago's derivation is by no means established by Mr. McKeen's account, and there are grave obstacles to such an assumption.

"When a bantam cross is once established, its marks are too unmistakable for many years following to leave it a matter of conjecture. We would not anticipate that such an exceptionally vigorous and thrifty a fowl as Mr. McKeen's stock is known to have been from the start, should have been in part derived from bantams; for it is apparent that the 'Winnebagoes' had power to improve the size and stamina of the Whitaker stock of Silvers. It would seem more credible that the rose-comb appearing upon these loosely-bred Buff Cochins was derived from the 'medium-sized common fowls'—supposing there was a male among them fit to keep a Sebright bantam at bay—than to assume that a bantam cross took place to account for that type of comb; especially as all buff fowls of

Asiatic derivation are prepotent to throw penciled or laced feathers when crossed. In view of the well-nigh universal proclivity of writers to ascribe a bantam origin to Laced Wyandottes, this position should be questioned, rather than blindly accepted in the face of its improbability and with no better substantiation than bare conjecture.

"The McKeen strain of Golden Wyandottes soon won the well-merited honor of being a better Wyandotte in color and markings that its parent, the Silver variety, and no less in body type and sturdy, useful qualities. Other strains of contemporaneous origin appeared in various sections of the country, the result of various crosses with the Silvers. An interesting instance of reversion was the strain of W. E. Shedd, of Waltham, Mass., which came from breeding together distinct stocks of Silvers. Whether recently derived from sources containing Golden tendencies or not, this case illustrates the constant tendency of eliminated color to reappear, and also that the accident of deposition of red pigment in the centers of the feathers, one way or the other, is all that differentiates Silvers from Goldens.

"The Golden variety, dating back to the year 1880 for its beginning, had so far advanced toward perfection in 1888 that it was admitted in that year to the Standard without opposition. As compared with the Silvers, they seem from the start to have rather more than held their own in the esteem of breeders as regards both superficial and practical qualities. Whether the Silvers in turn borrowed a new stock of these traits from the Goldens does not appear from any published accounts of crossing for such purpose. The Golden variety had a certain advantage as regards facility of plumage perfection which has escaped attention. A pattern of plumage is more feasibly evolved when the black and red pigments are working conjointly. According to the accredited accounts of their origin, it was in this order that the Sebright bantams were produced, the Silver following the Golden variety, and derived from it."

CHAPTER IV.

STANDARD REQUIREMENTS FOR COLOR OF GOLDEN WYANDOTTES.

Disqualifications.

Shanks other than yellow or dusky yellow. (See general and Wyandotte disqualifications.)

COLOR OF MALE.

Head.—Plumage, golden-bay, each feather having a black stripe, tapering to a fine point near its extremity.

Beak.—Dark horn, shading to yellow at point.

Eyes.—Reddish-bay.

Comb, Face, Wattles and Ear-Lobes.—Bright red.

Neck.—Hackle, web of feather, lustrous greenish-black, with a narrow edging of golden-bay, uniform in width, extending around point of feather; shaft of feather, golden-bay; plumage in front of hackle, same as breast.

Wings.—Bows, golden bay; coverts, golden bay with narrow, lustrous greenish-black lacings, conforming to shape of feathers forming a double bar of laced feathers across the wings; primaries, black, lower edge, golden-bay; secondaries, black, lower half of outer webs, golden-bay, with a narrow black edging wider at the tip, upper webs, edged with golden-bay.

Back.—Golden-bay; saddle, golden-bay in appearance, a black stripe through each feather, laced with golden-bay, conforming to shape of center, the black having a long, diamond-shaped center of golden-bay.

Tail.—Black; sickles and coverts, lustrous greenish-black; smaller coverts, black, with diamond-shaped, golden-bay centers, feathers laced with golden-bay.

Breast.—Web of each feather, golden-bay, laced with a narrow, lustrous greenish-black, sharply defined lacing, conforming to edge of feather.

Body and Fluff.—Body, web of each feather, golden-bay, laced with a narrow, lustrous greenish-black, sharply defined lacing, conforming to edge of feather; fluff, slate, powdered with golden-bay.

Legs and Toes.—Thighs, web of each feather, golden-bay, laced with a narrow, lustrous greenish-black, sharply defined lacing, to conform to edge of feather; shanks and toes, yellow.
Under-Color of All Sections.—Slate.

COLOR OF FEMALE.

Head.—Plumage, golden-bay.
Beak.—Dark horn, shading to yellow at point.
Eyes.—Reddish-bay.
Comb, Face, Wattles and Ear-Lobes.—Bright red.
Neck.—Golden-bay in appearance, with a black center through each feather, laced with golden-bay; shafts of feathers, golden-bay; feathers in front of neck same as breast.
Wings.—Shoulders, bows and coverts, each feather golden-bay laced with a narrow, lustrous greenish-black, sharply defined lacing, to conform to edge of feather; primaries, black, lower edges, golden-bay; secondaries, black, lower half of outer webs, golden-bay with narrow, black edgings wider at tips.
Back.—Each feather golden-bay, laced with a narrow, lustrous greenish-black, sharply defined lacing, to conform to edge of feather.
Tail.—Black, the upper sides of the two top feathers edged with golden-bay; coverts and smaller coverts black with golden-bay center.
Breast.—Each feather, golden-bay, laced with a narrow, lustrous greenish-black, sharply defined lacing, to conform to edge of feather.
Body and Fluff.—Body, each feather golden-bay, laced with a narrow, lustrous greenish-black, sharply defined lacing, to conform to edge of feather; fluff, slate, powdered with golden-bay.
Legs and Toes.—Thighs, each feather golden-bay, laced with a narrow, lustrous greenish-black, sharply defined lacing, to conform to edge of feather; shanks and toes, yellow.
Under-Color of All Sections.—Slate.

CHAPTER V.

BREEDING GOLDEN WYANDOTTES.

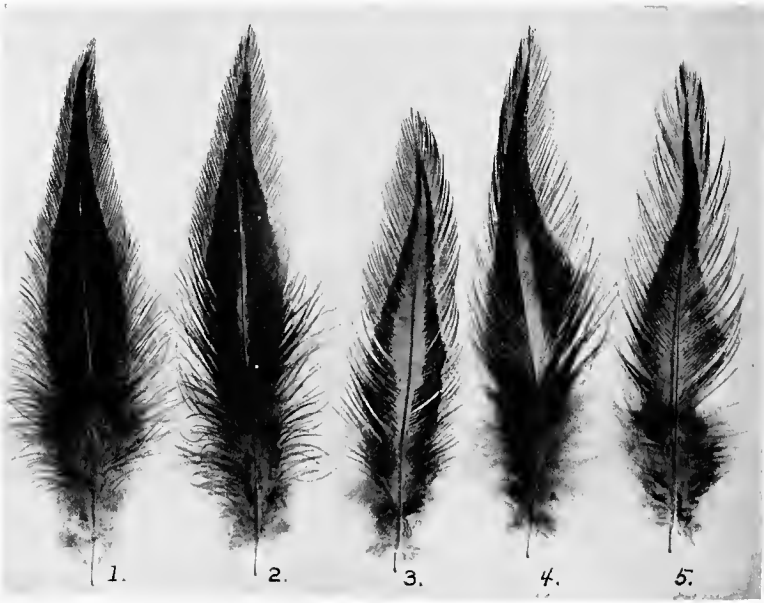
IT IS often said that the Golden Wyandotte is a counterpart of the Silver, "golden bay" being substituted for the "white" of the Silver Wyandotte. Such an explanation serves to distinguish the two varieties but it does not account for the varying tendencies in breeding.

Breeders of both varieties of laced Wyandottes have said that the black and red (golden bay) are easier to breed to Standard requirements than black and white. Every judge who has handled the varieties has recognized the fact that sound undercolor and strong black markings in wings are more frequently found in Golden males than in the males of the Silver variety. The white ground color of the latter quite naturally runs into the undercolor, and it frequently shows in the wings to an excessive extent, and the most careful breeding is required to hold it in check.

The principal faults of the Golden Wyandottes have been defects of shape but of recent years great progress has been made in correcting them. Breeders were careless in respect to comb and many unshapely combs were found in the variety. The birds were inclined to run long in back, long in legs, and to have long or high tails. Good shape is now found in typical Golden Wyandottes, both males and females, and these representative specimens also usually possess good combs. These are important points that every breeder should seek to secure and maintain.

A rich ground color is now bred in the variety. The Standand calls for a "golden bay" color which is not as dark as the rich bay of a bay horse for the expression "golden" is used to modify the word "bay". Gold is not the fundamental color; rather, bay is the principal color and golden is used to limit it and better describe the correct shade of color. A mistake should not be made in interpreting the Standard color-term or too light a ground color may be preferred. A light undercolor may produce the tawny buff surface; therefore, the Standard under-color should be selected for breeding.

PLATE 49.



GOLDEN WYANDOTTE MALE HACKLE.

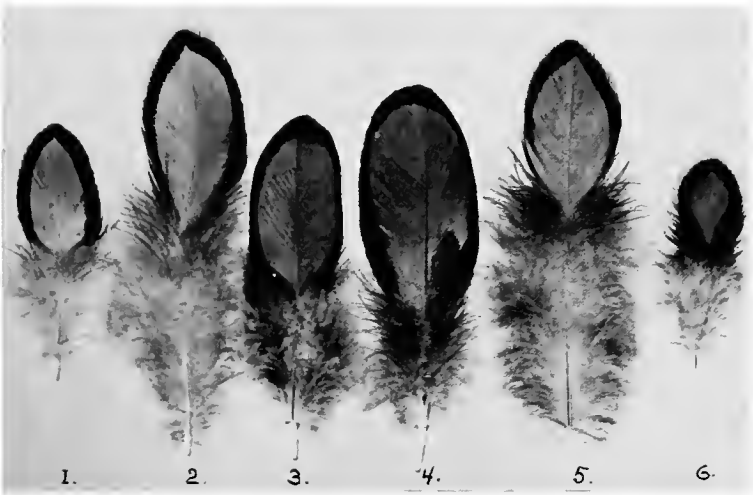
1—Idealized. 2—Best natural. 3—Pullet breeding male. 4—Pullet breeding male. 5—Defective, lacks lustre and density of black and strip.

Although the double mating system is used in breeding Golden Wyandottes it is not carried to such extremes as in certain strains of Silver Wyandottes. In Goldens black, smoky surfaced males are not used, as they are in Silvers, but a good pullet breeding male shows hackle and saddle having open centers like feathers 3 and 4.

In breeding lacing nothing is more important than open (large) centers in the saddle of the male. (Plate 52, Feathers 3, 4, 5.) The Golden male may have a wider center in saddle than is defined as a diamond-shaped center. Males with such saddles as are shown in Plate 52 produce the best lacing in their pullets.

White at base of a cock's or cockerel's hackle is a bad fault. The hackle should also be as free as possible from smutty or black tipping. The shaft of the feather should be golden bay, and the more open the black center is, in both sexes, the more is the bird esteemed. Breeders look to the

PLATE 50.



GOLDEN WYANDOTTE MALE BREAST, WING-BAR, BODY FLUFF AND HOCK.

1—Upper breast. 2—Lower breast near body fluff. 3—First wing-bar. 4—Second wing-bar. 5—Body fluff. 6—Hock.

The above represent best natural feathers from the best present day winners.

amount of lacing on the thighs and small feathers on the hocks, also in the body plumage and in the small feathers which cover the flesh of the underside of the wings. Lacing is a property of the variety and it should exist in good quantity and quality.

The lacing of the females should be open and round. A V-shaped point at the end of the shaft, letting the ground color intrude in the form of a V into the black band of lacing at the tip of the feather, is a fault that all breeders are trying to overcome. The success they are meeting is illustrated by the feathers on Plate 53. Feather 11 shows the V-shaped tendency toward the tip. Some Golden Wyandotte females are completely laced in that manner and improvement can only be secured by introducing a bird whose black lacing does not fail where it crosses the vane of the feather.

Some males possess narrow breast feathers, each of which have the V-shaped tip described in the preceding paragraph. They may be expected to reproduce this character of lacing. A large, round feather, rather than an almond-shaped feather, usually carries the best lacing, and it permits of the open centers being nicely displayed in the plumage of the bird; hence, this shape and size of individual feathers should be bred in preference to small ones.

Mossiness in the ground color is often found in hens, and sometimes in pullets but such pullets are usually culled. Few hens two years old still retain clear open centers. To produce clean (clear) open centers, employ a male bred from such a hen, and one that shows the open centers in saddle and hackle and open laced wing bar.

The lacing does not run clear around the web of the feathers of some hens and pullets, particularly in their breast sections. This is a defect. The female should be clearly and soundly laced in every section except main tail feathers and flights. The black lacing should be of sound color, not brownish, and good under-color must be bred from, to produce this strength of black lacing.

Frostings, or a marginal edging of red around the outside of the black lacing, is a fault found in many otherwise well laced sections of both male and female. Breed from a male as free as possible from edging on breast to correct this fault.

Shaftiness shows in the golden bay color of the Golden Laced Wyandotte when the quill of the feather is of a lighter shade than the ground color. The defect of shaftiness is not found in the Silver laced variety because the shaft and ground color are both white. The aim of the breeder of Golden Wyan-

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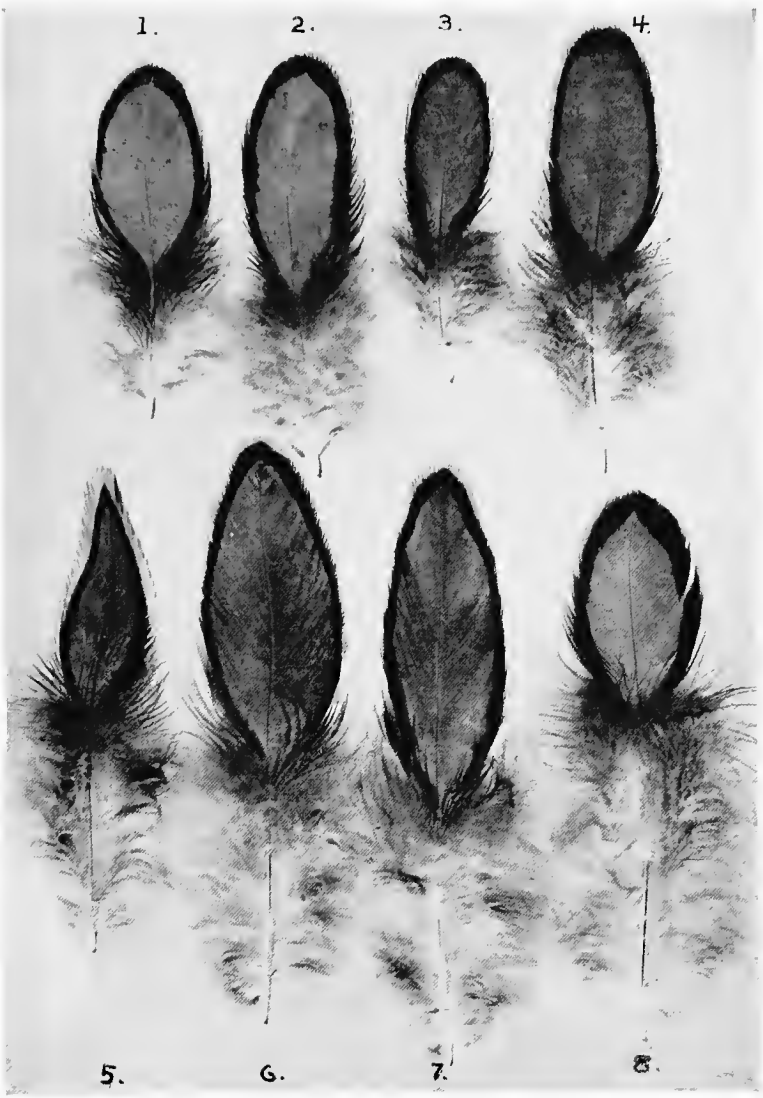
HEN FEATHERED GOLDEN WYANDOTTE MALE.

(See Plate 51.)

1—Upper breast. 2—Lower breast. 3—Wing-bar. 4—Wing-bar. 5—Center of back. 6—Saddle. 7—Tail covert. 8—Body fluff.

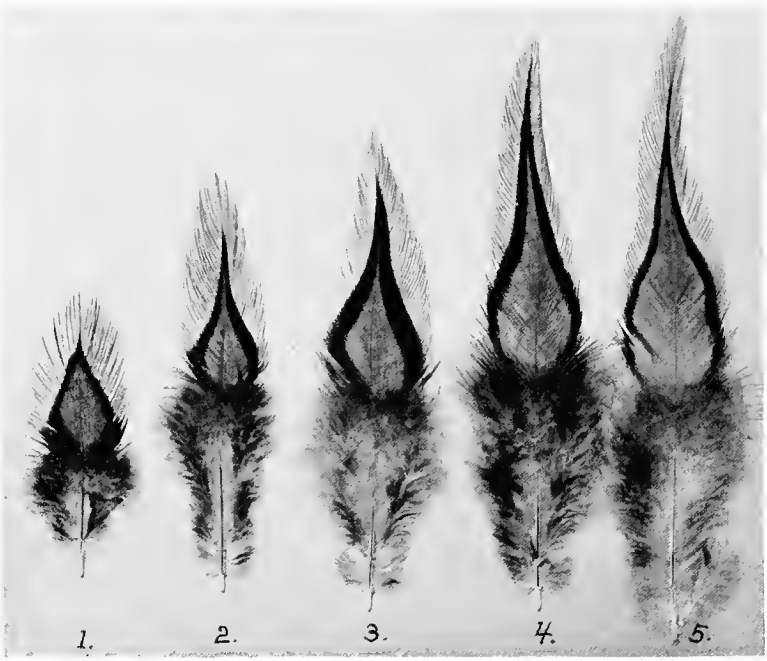
The above feathers are from one of Ira C. Keller's males bred from a strain of Golden Wyandottes that have been bred for broad, open laced feathers. As in the Silvers, these males do not take on full hen feathered plumage until the second and third years. They are used to produce exhibition pullets.

PLATE 51.



Description on opposite page

PLATE 52.



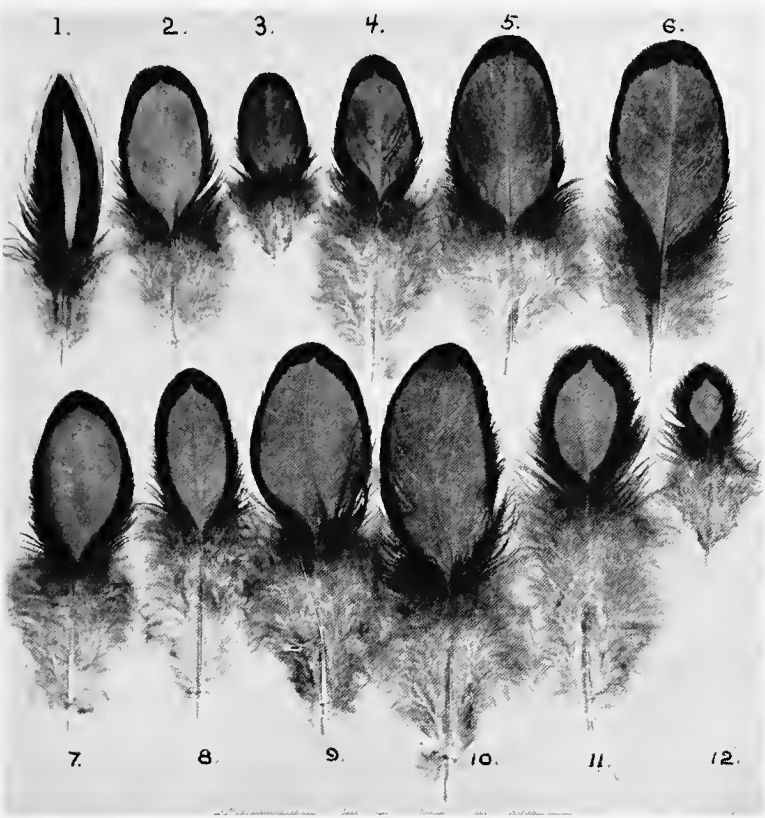
GOLDEN WYANDOTTE MALE WING-BOW, BACK AND SADDLE.

1—Wing-bow. 2—Back. 3—Top of saddle. 4—Saddle near tail. 5—Side of saddle.

These Golden Wyandotte feathers are regarded as exhibition male color and comply with Standard requirements, but are more open centered than those of the average Silver male. That is why Golden Wyandotte males having this quality breed better show pullets than the Silver males with similar markings.

dottes is to produce a ground color of the same shade. The only way to stop producing birds that have light shafts is to quit using shafty birds for breeding purposes, and employ those with good colored quills in all sections and sound undercolor. (F. L. P.)

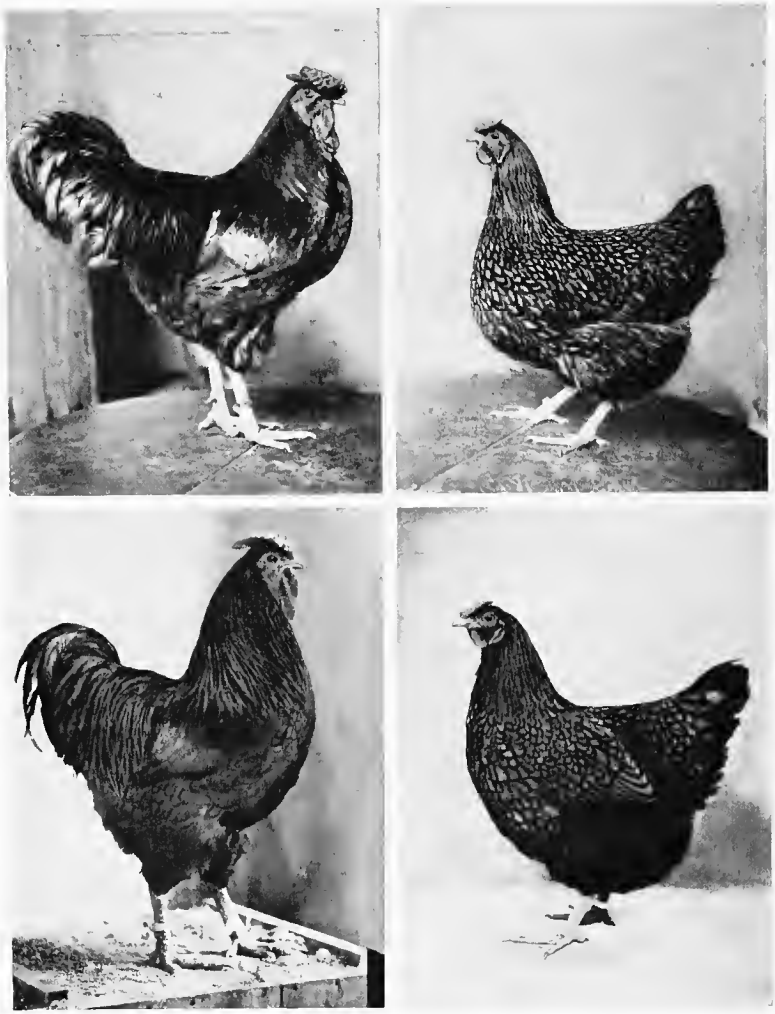
PLATE 53.



GOLDEN WYANDOTTE FEMALE FEATHERS.

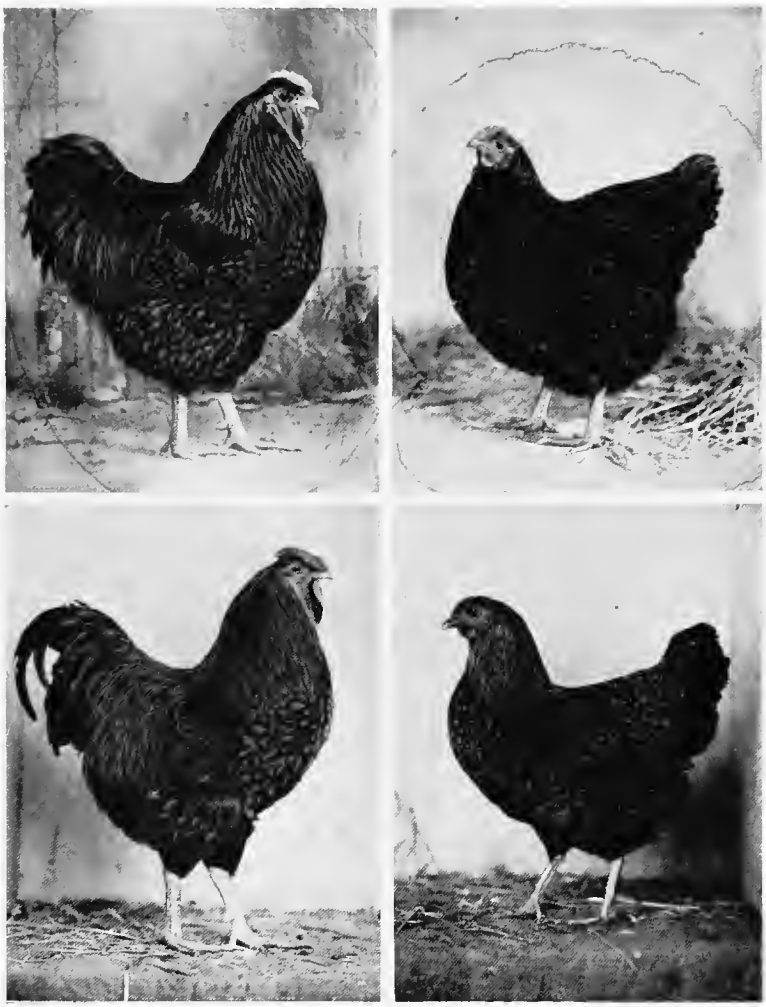
1—Hackle. 2—Cape. 3—Shoulder. 4—Wing-bow. 5—First step. 6—Wing-bar. 7—Breast. 8—Back. 9—Cushion. 10—Tail covert. 11—Body fluff. 12—Hock.
Best natural specimens.

PLATE 54.



Photos showing the development of Golden Wyandotte males. Upper left, 1st cock at New York, 1899. Upper right, 1st hen at New York, 1899. Lower left, winner at Chicago, 1908. Lower right, 1st hen at New York, 1908, having an egg record of 236 in one year.

PLATE 55.



Winning Golden Wyandottes from 1909 to 1915. Upper left, 1st cock at New York, 1909-10. Upper right, 1st hen New York, 1909-10. Lower left, winning cockerel at New York, 1915. Lower right, winning pullet at New York, 1915.

SECTION III.

CHAPTER I.
WHITE WYANDOTTES.

HISTORY OF THE ORIGIN AND DEVELOPMENT.

THE White Wyandotte originated from white sports of the Silver Laced, the original variety of the Wyandotte breed. It is consequently a true Wyandotte in name as well as in blood. B. M. Briggs of Collins Center, N. Y., was one of the first breeders to advertise White Wyandottes. in 1888, the size and shape of his birds being characteristic of the breed even at that early day. But George A. Towle, who also resided in Western New York, bred White Wyandottes as early as 1872. F. A. Houdlette of Massachusetts, pioneer breeder and fancier of Silver Wyandottes, mated up white sports of the latter in 1883 with excellent results, as they bred true to type and color. Other breeders of Silver Wyandottes no doubt found white sports no uncommon occurrence among the annual crop of chickens hatched and reared from Silver Wyandotte eggs, but evidently did not appreciate their value at that early day, so discarded them. History will credit the three poultry breeders mentioned above as the originators and disseminators of White Wyandottes.

Admitted to the Standard, 1888.—It was in 1888 that White Wyandottes were admitted to the American Standard of Perfection at the Buffalo, N. Y., meeting of the American Poultry Association, and from that day up to the present day they have enjoyed uninterrupted popularity, not only in this country but in Canada and England as well. That a great boom of the White Wyandotte was anticipated by close observers in the standard-bred poultry field nearly thirty years ago, the following forecast by Rev. Chas. L. Ayer, in the Fancier's Gazette (Indianapolis, Ind., June, 1888), illustrates:

"In an experience of more than thirty years, I have never known a new breed to start with such an immense boom, and with reason, for White Wyandottes, with the almost unmatched reputation their darker cousins have acquired, with

the added advantage of solid color which standard torturers cannot tinker . . . "

While no "tinkering" in the color of the plumage was done by "Standard torturers", an attempt was made in 1893 to word the Standard discription of the ear-lobes so that a small speck of white in same would disqualify any specimen possessing it, but White Wyandotte breeders frustrated this attempt, substituting the rather liberal provision which disqualified only those specmens having solid white ear-lobes, which was embodied in the American Standard of Perfection in 1894. This proved to be a wise ruling, as it helped to build up many fine strains of White Wyandottes and saved many of the best birds, which at that period were more or less white in the lobes, from going to the block. White in the ear-lobes of White Wyandottes gradually disappeared and today few if any specimens show it in a marked degree. The present Standard law, which makes one-quarter positive, enamel white in the ear-lobes a disqualification, is ample protection for the Wyandotte breed, and will meet with the approval of all breeders of standard White Wyandottes.

The year 1888 proved one of great importance to this new variety of the Wyandotte breed, as some exceptionally fine specimens were exhibited at that early period of their existence. The White Wyandotte cock "Silver King" shown by W. N. Croffut, Binghamton, N. Y., at the Rochester (N. Y.) show that year, was probably the finest male of the new variety seen up to that time. Edgar Buttery, in the Winsted (Conn.) show in 1888, also made a remarkable exhibit of White Wyandottes, which was commented upon by the Poultry Bulletin as follows:

"The display of White Wyandottes was the feature of the show. The three pens of Edgar Buttery were well-nigh perfection—a grand lot of birds. The first premium cockerel was a picture, perfect in profile and comb, elegant in plumage and carriage. He was the center of attraction. He scored 96½ points, with one point out for weight."

This cockerel was of the compact, cobby type characteristic of the original Wyandotte and the most typical and shapely male of the breed bred and exhibited in 1888. The pullets exhibited by Mr. Buttery were also very even in quality, both shape and color being excellent. Of course judges were then more liberal in scoring this variety than they are at present.

Soon after the admission of White Wyandottes to the Standard in 1888, breeders in New York and New England

started pushing them to the front. James Forsyth, D. F. Taylor, Knapp Bros., Dr. Howland and I. K. Felch being chefly instrumental and prominent in doing so. When the new Madison Square Garden Show was opened in New York in 1891, some excellent specimens were exhibited in the old and young classes.

Shape was of paramount importance with breeders of Wyandottes twenty-five or more years ago, and the "bird of curves" seemed to be a fixed ideal in their minds, little or no attention being paid at that time to "dead white" plumage, so much thought of by breeders of today. If the "sap" in the feather did not show on the purface plumage, little or no importance was attached to the yellowish tinge in under-color in the quills, a natural condition existing in those early days.

White Wyandotte Females Twenty-five Years Ago.—Female White Wyandotte type in the early days was fairly even, which might have been expected of a variety made up of white sports of the original Silver Wyandotte, and especially so in view of the fact that some individual hen of the latter breed laid the eggs which produced the white chickens. The latter naturally inherited the shape characteristics of their dam and if the latter possessed superior Wyandotte type, the progeny, especially the pullets, would develop equally good type when fully matured.

The White Wyandotte female illustrated in Figure 35, Page 91, is reprinted from Felch, Babcock and Lee's "Philosophy of Judging." It is an artist's model and not a photographic reproduction of the prevailing type in 1888.

It was in 1893 that the real upward growth of the White Wyandotte started, not only in New England and New York, but in the West. At the World's Fair, Chicago, Ill., in October of that year and at the Madison Square Garden Show of 1894, the entries in the White Wyandotte classes, while small, were represented by specimens of such exceptional merit as to attract the attention of good fanciers and shrewd breeders, who were quick to grasp the opportunity and to see the great future in store for this variety, from the commercial standpoint.

At Chicago in 1893, the White Wyandotte classes consisted of three cocks, five hens, six cockerels, seven pullets and two pens. The exhibitors included Knapp Bros., Fabius, N. Y., D. F. Taylor, DeRuyter, N. Y., Chas. McClave, New London, Ohio, and Geo. G. McCormick, London, Canada. The first prize cock bird was a bird of excellent Wyandotte character, with pure white plumage, shown in good condi-

tion. He was bred by Mr. McCormick. The cockerels were not as strong, being undeveloped, but one cockerel shown by D. F. Taylor was a picture of Wyandotte type, having fine comb and plumage, but was disqualified for a speck of gray in his feathers, a disqualification in the Standard of 1888 but abolished in later editions. The color of the first prize cockerel (McClave) was rather creamy, the comb being only fair, but the bird had size and shape. Second (Knapp Bros.) and third (C. J. Daniel) cockerels were small but very good in shape and color. The first prize hen (Knapp Bros.) and first (Knapp) and second (Taylor) prize pullets were excellent in type and color, but the first prize pen (Knapp Bros.) attracted the most attention, being shown in superb condition, with male and females of a very high order of excellence in both shape and color.

It was at the Madison Square Garden Show, New York, in 1894, where the so-called blocky type of the White Wyandotte had its start. James Forsyth exhibited a small but select string at that show, winning all the blue ribbons, his first prize pullet being a very large, symmetrical bird of a type much in favor today, possessing the coveted "dead white" plumage, And from that day on, the heavier and blockier type of White Wyandotte with intensely white plumage ruled supreme in the show room.

J. M. Dexter, of Camden, N. Y., exhibited a pair of White Wyandotte chicks at the Orange County Fair, Middletown, N. Y., in September, 1894, which attracted much attention from Wyandotte experts, owing to their good size, elegant, clear color of plumage, good legs and feet, the only fault—at that time—being that the male bird was not quite high enough on his legs for a typical Wyandotte. In the same year, C. F. A. Smith, of Waltham, Mass., exhibited "Promoter", a grand White Wyandotte cock, who played an important part in the the history of White Wyandottes, his blood being diffused throughout several noted strains in New England. This cock was exceptionally good in type, size and color, but the female line bred by Mr. Smith possessed heavier body and fluff and shorter and higher cushioned back, the hens showing Cochin shape characteristics in this respect, the same as will be found in some of the winning hens bred and exhibited today.

It was at the Madison Square Garden Show, New York, in 1895, that John B. Felt, of Massachusetts, made his first appearance with a fine string of birds, capturing all the first prizes from such noted breeders as James Forsyth, J. M. Dexter

and J. C. Haynes. For several years afterwards, the Felt White Wyandottes were in the front rank, beating all comers.

It was at the first Boston Show, held in Mechanic's Building, 1896, that the largest and best classes of White Wyandottes ever exhibited up to that time, at any show in the United States, were penned. The entries numbered ten cocks, fifteen hens, twenty-three cockerels, twenty-five pullets and eight pens. It was a battle royal for the honors. Mr. Felt winning over Dr. A. A. Howland's White Wyandotte cock with a bird shown in superior condition and having better head points; otherwise these two beautiful specimens were equal in merit, the best pair of old males seen up to that time. Arthur G. Duston, of Massachusetts, began his show career at this great Boston Wyandotte exhibit, by winning first prize with a superior cockerel, a bird fine in type, white in plumage, with excellent head points, and shown in the pink of condition. This 1896 Boston Show made White Wyandotte history, and launched the modern type of the variety on the sea of popularity. At Rochester, N. Y., the same year, a great exhibit of White Wyandottes was made by D. F. Taylor, Jos. N. Prue, J. F. Tallinger, G. N. Mann, and other breeders of more or less prominence. The boom spread over the United States and into Canada, with a most salutory effect on the development of the modern White Wyandotte.

Very Popular in England.—White Wyandottes have become very popular in England in recent years, the reason for which is clearly set forth in an article entitled "Why Are White Wyandottes So Popular?", contributed to The Poultry World, England, November, 1912, by the well-known Wyandotte breeder, T. H. Furness, who in his introductory paragraphs, remarks:

"I think I can safely say that if there is one breed of poultry that has made more progress and become more popular than another during the last few years it is the White Wyandotte. Some years ago there appeared in the Wyandotte Club Year Book a Review of the White Wyandottes, which reads: 'Whites do not seem to grow in popularity, although a most handsome fowl, easy to breed and hardy to rear. It is not easy to understand the reason, unless it is that judges lean to other varieties in mixed classes, and classes of whites alone are seldom seen.'

"What then are the reasons for the unbounded popularity which has brought them right up to the front today? These questions, in my opinion, are very easy to answer. In the first

place, I don't know of any breed of poultry which can approach the White Wyandotte for its handsome appearance. What looks nicer than a flock of clean Whites with their yellow legs, showing up in contrast of colors to the green pastures? Then comes the utility side of the question, which to the majority is the most important one, as all-round winter and summer layers they stand second to none, and are no doubt best of the Wynadotte family in these respects, which is saying a good deal. Not once, but on many occasions, have they come out right at the top in the various Egg Laying Competitions.

"They are very useful birds, too, for the table, and extremely hardy and easy to rear. Today the Whites are well catered for, as practically every show provides classes for them, and what entries—it is nothing unusual to find forty or fifty birds entered in a single class.

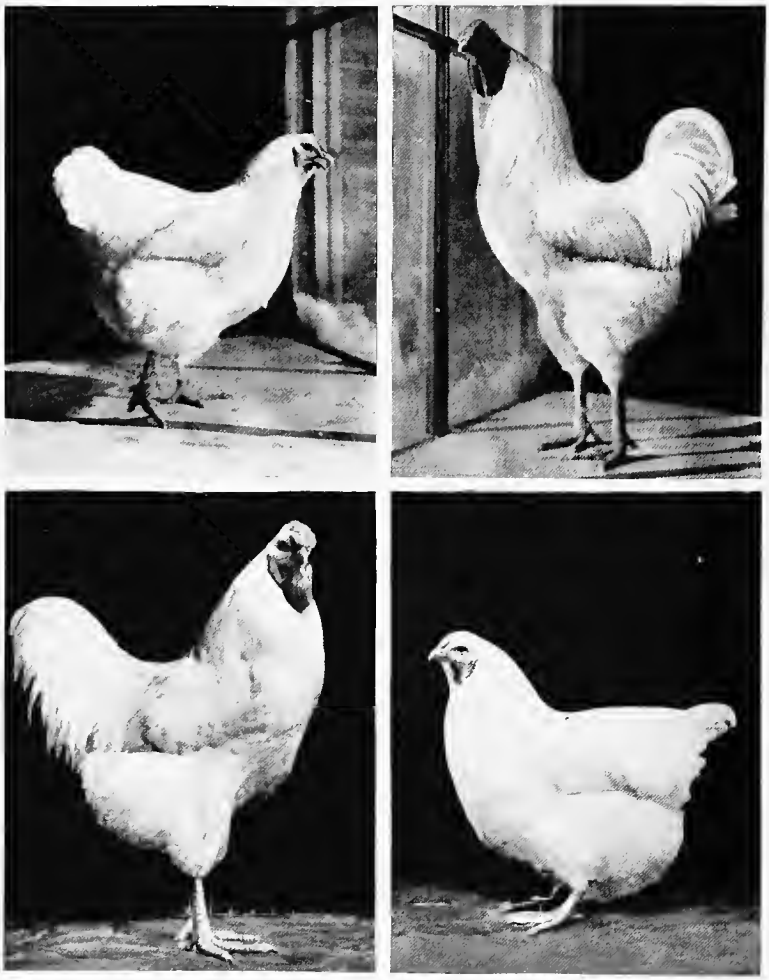
"I believe I am correct in saying that the first White Wyandottes exhibited in England were those shown by my father, W. C. Furness, at West Bromwish, in 1886, in Any Other Variety classes—a photograph of the male appears in the heading to this article—also one of my present-day winning White cockerels and pullets, from which it will easily be seen that great progress has been made in the improvement of type and general outline of the birds, also I might add, in pureness of color.

"The first show in England where separate classes were provided for Whites was at Chesterfield in 1888. The 'Fanciers Gazette' report of this show says: 'Chesterfield Show, Jan. 21 and 23, 1888. A new class was here introduced for White Wyandottes. Chesterfield seems to be the home of this bird, as the first class for the "laced" breeds was introduced here some years ago. They appear to be year by year becoming more popular in this district. The Whites had only six entries, but they were of very great merit, the first (Furness) a really grand pair, perfect in comb, and beautiful in shape, with good legs, and in the most perfect condition; second (the same owner) and a really pretty pair.' I don't think anyone who then saw the birds staged, not even their strongest supporter and enthusiast, would have predicted such a future for the breed."

White Wyandottes from 1896 to 1910.—The first really large classes of White Wyandottes at the Madison Square

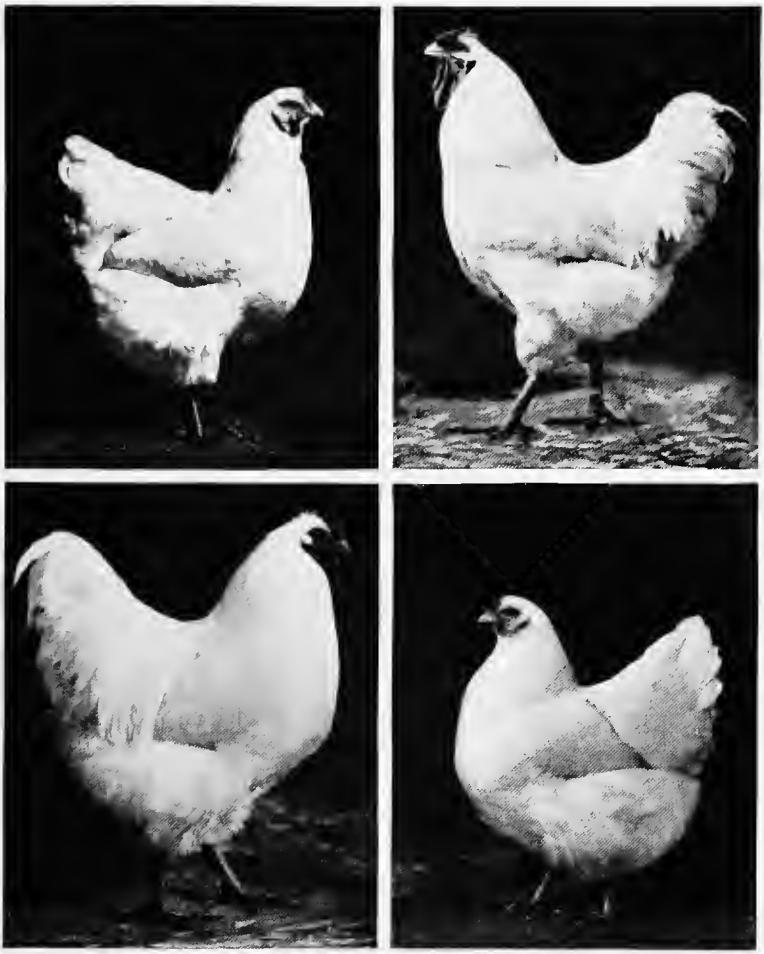
(Concluded on page 194.)

PLATE 56.



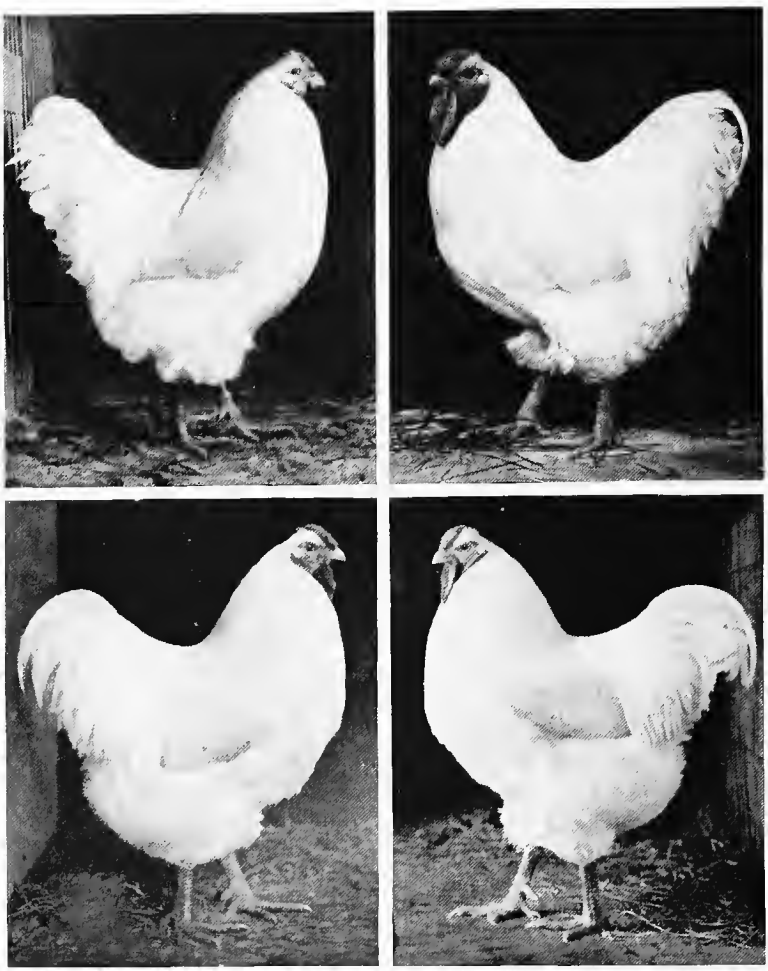
Twenty years' development in White Wyandottes—see Plates 57, 58 and 59. Above, winning types of 1895. Below, 1st cockerel Philadelphia, 1900, and 1st cock New York, 1901, also 1st hen Boston, 1900.

PLATE 57.



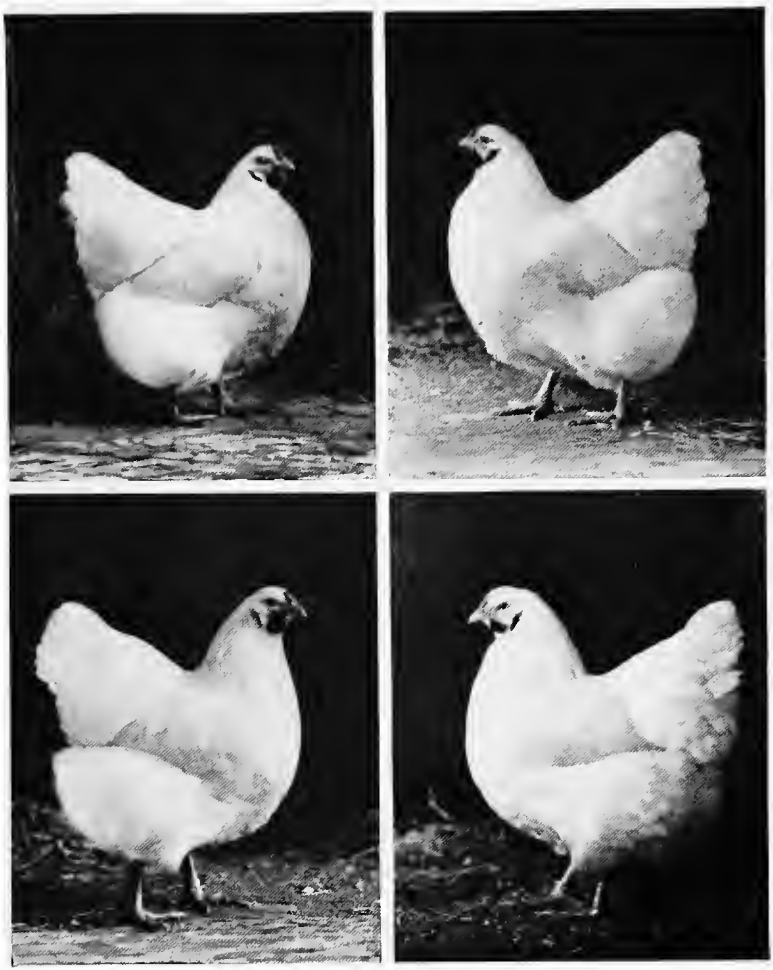
Twenty years' development in White Wyandottes—See Plates 56, 58 and 59. Above, 1st pullet New York, 1905, and 1st cock Chicago, 1905. Below, 1st cock New York, 1910, and 1st hen New York, 1910.

PLATE 58.



Twenty years' development in White Wyandottes—see Plates 56, 57 and 59. Upper left, 1st cock Chicago Coliseum, 1914. Upper right, 1st cock, Crystal Palace, N. Y., 1915. Lower left, 1st cock Boston, 1916. Lower right, 1st cock Boston, 1914.

PLATE 59.



Twenty years' development in White Wyandottes—see Plates 56, 57 and 58. Upper left, 1st hen Boston, 1912. Upper right, 1st hen Boston, 1915. Lower left, 1st pullet Boston, 1915. Lower right, winning hen Buffalo, 1915.

Garden Show, New York, were at the show held December 29th, 1896 to January 2nd, 1897, when such noted breeders as John B. Felt, Arthur G. Duston, A. C. Hawkins, James Forsyth, L. C. Piser, Charles Nixon and W. H. Shute exhibited. There were eighty-two White Wyandottes penned at that show.

At Boston, in 1898, the entries increased to 134 specimens and at the same show in 1900 there were 161 single entries and 29 breeding pens, making a total of 306 White Wyandottes exhibited. At the Madison Square Garden show the same winter 168 White Wyandottes were exhibited. Entries at the large Western shows made correspondingly rapid increases in the number of entries, while in Canada exhibits grew rapidly larger each year.

At the Pan-American Exposition, Buffalo, N. Y., 1901, 240 White Wyandottes were exhibited, leading all other varieties in point of numbers. The largest entry of White Wyandottes at New York was in 1905, when 305 entries were penned. The greatest number exhibited at Boston was in 1902, the total being 227 entries, but the latter do not represent the actual number of White Wyandottes on exhibition, as a pen entry contains five birds and a display cage ten specimens.

At the New York Show of 1908-09 there were 381 White Wyandottes penned, including 241 singles, 24 pens, 2 display entries. But the largest number of White Wyandottes ever exhibited was at St. Louis World's Fair in 1904, the entries being as follows: cocks 108, cockerels 122, hens 129, pullets 148 and pens 64, making a total of 827 specimens, an unequaled record.

The entries at New York 1909-10 were 155 singles, and 23 pens; at Boston the same season 122 single and 14 pen entries were catalogued. With a three dollar entry fee at New York and a two dollar one at Boston on single specimens and five dollars for exhibition pens charged, the quantity as well as quality of the White Wyandottes entered must be considered remarkable in view of the fact that the best birds bred in the East and in Canada have been exhibited at these two shows.

Looking backward fifteen or more years and thinking over the very large classes of White Wyandottes exhibited at our leading shows, we confess that real top-notch specimens were rather few and far between, when compared with the present day White Wyandotte classes, which exhibit uniform excellence at all American and Canadian exhibitions. (J. H. D.)

CHAPTER II.

STANDARD REQUIREMENTS FOR COLOR OF WHITE WYANDOTTES.

Disqualifications.

Red, buff or positive black in any part of plumage; shanks other than yellow. (See general and Wyandotte disqualifications.)

COLOR OF MALE AND FEMALE.

Beak.—Yellow.
Eyes.—Reddish-bay.
Comb, Face, Wattles and Ear-Lobes.—Bright red.
Shanks and Toes.—Rich yellow.
Plumage.—Web, fluff and quills of feathers in all sections, pure white.

CHAPTER III.

MATING TO IMPROVE THE QUALITY.

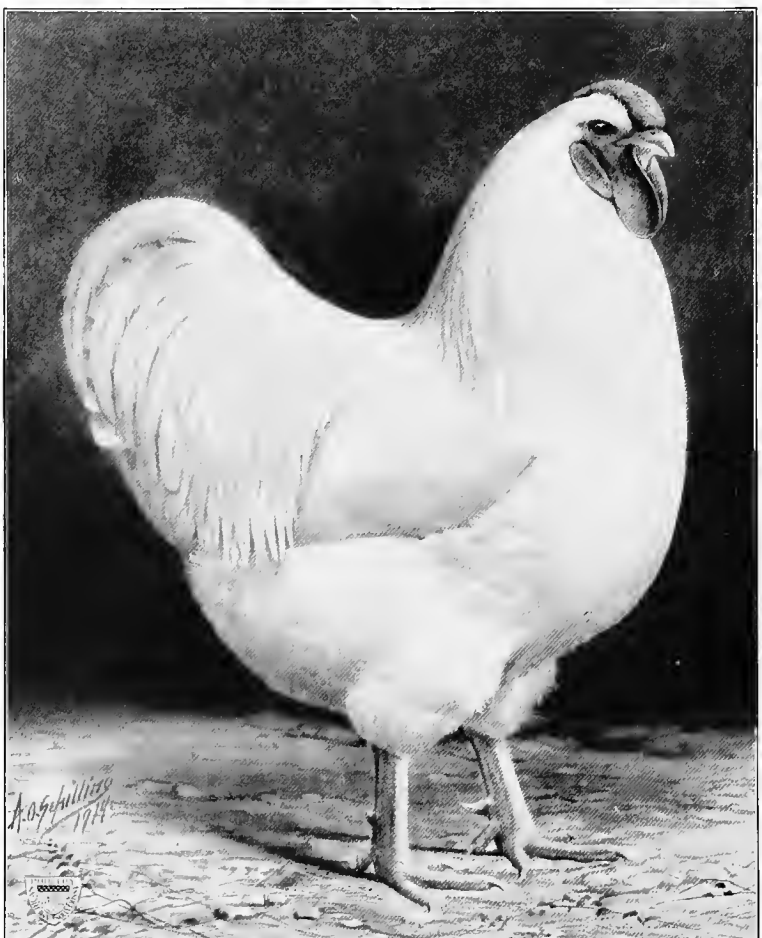
TO PROPERLY mate a pen of White Wyandottes it is necessary, first of all, to have a clear understanding of the Standard requirements for the variety. Without this knowledge the breeder cannot mate to maintain and improve the good qualities of his line nor can he recognize defects that exist in his breeding birds and mate to overcome them.

Success comes through mating individual birds that possess the qualities desired. Fanciers often make small matings of three or four birds that every specimen may be excluded that does not possess the desired points.

There are many sections to a bird, and a great many different points or features to be considered in mating. If some particular quality is desired, which does not exist in the breeder's stock, the quickest way to introduce it, also the cheapest way, is to go out and buy a bird that possesses it.

Certain qualities often exist in the male, but not in the

PLATE 60.



WHITE WYANDOTTE MALE

PLATE 61.

WHITE WYANDOTTE FEMALE

female, or vice versa. As an instance, the male may have a reddish-bay eye and the female a pearl or gray colored eye. Such birds may be mated together. It would be a better mating if both sexes possessed the Standard eye, i. e., reddish-bay, but if a perfect eye cannot be secured in both sexes, it certainly should exist in one. If both sexes are deficient in eye color, they should not be mated together. **Never mate together birds that possess the same defects.**

Breeding Counts Most.—A well mated flock is not necessarily composed of the highest priced individual quality. It is composed of birds that represent the best of breeding for generations, and so mated that the faults of the individual specimens and the weak tendencies of the line may be corrected.

The skillful breeder can take White Wyandotte hens that are too big and loose feathered for showing, and mate them to a neat, well-fashioned male, a trifle on the small order, and produce good specimens. This mating has been looked on with favor by some Wyandotte specialists, and it has been said that the necessary size is transmitted by the female, and color and head points by the male.

The highest type of exhibition White Wyandotte female has a decidedly smooth surface to her plumage. This is so desirable, that for years the first prize for White Wyandotte pen at the New York Show has gone to a pen composed of a cockerel and pullets, for the neatest and smoothest feathering is found on the young birds. However, the big, more abundantly feathered hens should not be despised in the breeding yard. If the cockerels have too long legs, or their backs and tails are not sufficiently furnished with plumage, it is advisable to employ some strong, blocky, well-feathered hens in the mating. Such females should produce a greater wealth of plumage in their male chicks, and give to these cockerels a fuller type.

Plumage Influences Shape.—The typical Wyandotte gets much of its shape from a properly developed and distributed plumage. A skillful fitter can change the apparent shape to some extent by manipulating the plumage, but where the perfection attained is the result of **breeding**, the bird may be expected to **reproduce** its quality.

A great deal of misunderstanding in respect to the tail of the White Wyandotte has prevailed among many otherwise good breeders. In order to secure a well spread tail, these breeders have erred in breeding a very low tail. When such a

tail is full grown, it gives to the bird a flat appearing back and long tail. To overcome this, the tails of both cocks and cockerels have been pulled prior to showing, and the birds exhibited with an incomplete growth of tail. The true Wyandotte is a bird of curves, and the male should be bred to carry his tail in accordance with the Standard requirement of fifty degrees above the horizontal. Such a bird need not carry a tail that is either unnaturally short, or that has been illegitimately treated, in order to exhibit the fine symmetry of the Standard Wyandotte.

Flat backed, low tailed females are not good breeders of this Standard-tailed male; and preference should be given in the breeding yard to the female which has a Standard tail carried at an angle of forty degrees above the horizontal.

Excessively heavy males with sloping backs are not typical of this early maturing breed. White Wyandotte chicks should grow and feather rapidly to maintain the reputation of the variety as a broiler producer, and this quality of rapid development may be maintained and improved by breeding from fowls that grew and feathered properly as chicks.

Ticking or Peppering.—The most prevalent color defects are brass and black ticking or peppering. These two faults may be found in the same individual, but such a one is unworthy to be used in perpetuating the variety. Often the whitest birds will show upon close examination a few black flecks or ticks. As long as this peppering is confined to neck, back or breast feathers, and is very limited in quantity, it is not a disqualification, and an otherwise good bird should not be discarded from the breeding pen for possessing it. If the black peppering appears in wing primaries or secondaries, or in the main tail plumage, then the defect becomes serious, for the breeding of such a bird may result in an excessive amount of peppering in the chicks.

Stay White Color.—Brass or straw color sometimes appear on the neck, back and saddle plumage of males, and a trace of the same on the hackles of females. Like rust on tin, it is sometimes the result of sun and rain working alternately. The plumage of some birds is practically impervious to this and other influences, and remains white throughout the year. This kind of plumage is termed "stay white." A stay white bird may show some ticking, for ticking often shows in the whitest specimens, but such an one is vastly to be preferred to a brassy specimen.

In order to produce stay white males, it is necessary to have stay white breeders. The number of stay white birds has so increased that every breeder should have one at the head of his yard.

Some White Wyandottes exhibit a yellow tone to their under-plumage, known as creaminess. In young and newly moulted old stock, it may be due to sap or oil in the feathers, in which case they will become white when they mature. The birds of other strains of White Wyandottes may grow a white plumage, the quills appearing flesh colored when young. The best breeders are perpetuating this trait in their lines. Mr. Maurice F. Delano writes: "The ideal male to breed white quills is the male whose pinfeathers are always pink in the quill when coming in, and that never show the yellow, oily pigment that makes so many good birds slow in ripening their plumage."

The white of a White Wyandotte may be a chalk white or a lustrous pure white, the latter being designated as satin finish. This sheen or life to the plumage is a quality worthy of full development through selective breeding. On this point, Mr. Delano has written: "Dead plumage, without gloss, is as unattractive in a white fowl as it is in a buff or any other color."

White Plumage and Yellow Legs.—Some of the early breeders of White Wyandottes considered it a natural impossibility to produce pure white plumage in combination with rich yellow shanks and beaks. It is still true that the brassy or creamy bird may have the deepest yellow shanks and beak; however, the difficulty has been overcome to a certain extent and today pure white birds may be seen which possess Standard colored shanks and beaks.

The depth of color of the skin corresponds to the color of the shanks and beak, and birds grown on a grass range and fed yellow corn may have orange colored shanks and likewise a rich yellow skin, from which grows an oily or creamy feather. Females that have laid heavily may have lost some of the color of their shanks. Breeders kept in a bare yard, especially those kept on dry, sandy soil, or in whose run coal ashes have been put, also bleach out in shank color. This does not affect their breeding value and such breeders may be improved for show purposes by being allowed to run during the summer months on grass range, preferably on low land. Young stock grown on grass range will have correct yellow shanks.

Spotted Shanks.—Green spots on the shanks of a White Wyandotte are unsightly. A small green spot may be tolerated in a female breeder, but several spots or a large green blot should condemn the bird. A male that has green in shanks should not be used for breeding.

A dark spot or stripe may also occasionally be found in the beak, and this is a defect. The breeder should remember that **the only way to get rid of defects is to breed them out.**

The aim of the breeder should be to produce the bird described by the Standard. In the hands of some breeders, the White Wyandotte has passed through fads, but the faddists have had to either give up breeding, or return to the Standard type, which is not only the most practical, but also the most showy.

The relative importance of shape and color is no longer an important question. Competition is so keen that the winners must possess both good shape and good color. (F. L. P.)

PLATE 62.

WINNING WHITE WYANDOTTES OF 1915.

1st pen cockerel Hagerstown and N. Y. State Fair, 1915, and 1st hen Hagerstown and N. Y. State Fair, 1915.

SECTION IV.

CHAPTER I.
BUFF WYANDOTTES.

HISTORY OF THE ORIGIN AND DEVELOPMENT.

THE Buff Wyandotte of today is of decidedly mixed origin, being descended from several distinct crosses, which became more or less interbred in most instances, while in a few isolated cases the original blood lines were carefully maintained by breeders of certain strains. When the so-called "craze" for buff plumage became evident in this country and abroad, due to the advent of two new varieties, namely the Buff Orpington and Buff Leghorn, which rapidly became popular, it was not long before Buff Wyandottes were produced by enterprising New England poultry breeders, who selected light colored Rhode Island Reds as the quickest mode of production. It was in 1891 and several years afterward, that these Rhode Island Red Buff Wyandotes were exhibited at New York and Philadelphia by Dr. Aldrich and R. G. Buffington. These early specimens were Buff Wyandottes in name only, as they were not only off-type but off-color as well. These faded Rhode Island Reds played an important part in laying the foundation for the breeding stock that was largely used for the purposes of building up the Buff Wyandotte that would be such in typical shape and true buff color.

Origin of the Dutcher Strain.—In 1888, however, another strain of Buff Wyandottes originated from an accidental cross of Golden and White Wyandottes, a buff chick being the result. This happened in the yards of George H. Brackenbury, Auburn, N. Y., and led Mr. Brackenbury to make further experiments. During the following year, he mated the 1888 buff chick, which proved to be a cockerel, with a Buff Cochin hen, also mating a Golden Wyandotte cock with a Buff Cochin hen, and in the following year breeding the progeny of these two strains together both ways, which mating resulted in producing more than fifty per cent clean-shanked chickens and

rose combs. A cockerel from this early mating proved to be the progenitor of many high class exhibition specimens, especially under the skillful handling of Frank J. Dutcher, Hopedale, Mass.

The Brackenbury-Dutcher strain was a Buff Cochin-White and Golden Wyandotte blend, while the Buffington strain was the result of a Rhode Island Red and Silver Wyandotte cross. F. L. Mattison, South Shaftesbury, Vermont, started breeding Buff Wyandottes with birds exhibited at New York in 1892, which Mr. Mattison purchased from Messrs. Aldrich and Buffington, who were the exhibitors of this new variety that year. Regarding the foundation of the Mattison strain, C. S. Mattison in the Poultry Monthly, November, 1899, wrote as follows:

"The year previous to their coming into my possession, my brother wrote Mr. Dutcher, who had then purchased the entire strain of Mr. Brackenbury, that unless he could spare him a male or two, he would procure a sparsely feathered legged Buff Cochin male. This was necessary from the fact that the Rhode Island Red Buffs could not hold their own in competition with the Cochin-made Buffs, which are larger, better colored and had more of the Wyandotte shape. Mr. Dutcher sent him an old bird that came direct from Mr. Brackenbury and a son of this bird, which have helped this strain of Buffs a great deal.

"I think it is a fact that there is very little of what is termed Rhode Island Red blood in any flock of Buff Wyandottes that are prominent in the show-room today, and how much the present Buffs owe to the past R. I. Red blood is difficult to estimate. It has been equally as difficult to clean up the black in one as the white in the other (Buff Cochin strain). The feathered legs are equally as easily got rid of as the green or willow legs. In the R. I. Reds, the slaty under-color offsets the light under-color of the Cochin-made Buffs, and it strikes me that the Cochin-made Buffs come in for size and color that has made the Buff Wyandotte and Plymouth Rock of the present time. I presume my experience and observation have been as extensive as any, and I feel like taking off my hat to Mr. Brackenbury, and giving him the credit he deserves in originating one of the best (if not the best) strains of Buff Wyandottes extant."

Origin of Other Strains.—Mr. Brackenbury in the Poultry Monthly, February, 1899, states that W. H. Nicholoy founded

a strain of Buff Wyandottes by crossing Golden Wyandottes that showed little if any lacing with Buff Cochins and White Wyandottes. Nearly all other strains originated by similar crosses, excepting the one founded by Chas. P. Pond, whose foundation blood was from an old Hamburg-Cochin cross.

Prof. Waldo H. Dunn, Monroe, Ohio, contributed to Poultry, England, September, 1899, the following data relating to the origin of various strains of Buff Wyandottes:

"As regards the origin, reports are conflicting and various. Several of the different strains were produced by different means. For instance, Mr. Drevenstedt says 'Before Buff Wyandottes became known to the fancy we saw a pair of birds in a Philadelphia bird dealer's shop that looked like the Buff Wyandottes of our early shows. We bought these birds. They were nothing but faded out Golden Wyandottes, the black in the hackles and occasional crescent-tipped black feathers in the body confirming that theory. The birds never bred anything, for the reason that ill-luck prevented the raising of the few chicks hatched. However, we succeeded in buying a pen of these birds and sent them to James Forsyth of Owego, N. Y. The latter bought a lot of birds called Buff Wyandottes, but which were Rhode Island Reds with rose combs in reality, at a New York show, the same winter he received the pen from us. Mr. Forsyth founded his strain from that collection of birds. There was no Cochin blood in the flock that we were aware of."

"In 1895, C. A. Emery was asked concerning his experience with the Buffs. He said, 'In our own experience we have not hatched a chick in Buff Wyandottes this year, not buff in color; several being fine in surface and under-color, some light buff, some too dark, but every one a buff in some one of the varied tints of buff.'

"Joseph McKeen, while he did not claim to be the originator of this variety, bred from such excellent stock and with such wisdom that his strain is today recognized as one of the best, if not the best in America. They are grand in under-color, being pure buff to the skin, and of an even surface color.

"M. F. Norris says, 'My strain of Buff Wyandottes was obtained by crossing the Silver Wyandottes and a strain of fowls noted for twenty years about Newport, Rhode Island, for their great laying and market qualities, known as the Rhode Island Reds. For a new variety, they breed quite true to color, few

light specimens appearing. Some of the dark ones show a little dark color in neck feathers; this is more noticeable in cockerels than in pullets. Some will appear in single combs, after the fashion of the early Silvers. However, it is not a fact that the Buffs throw a larger percent of culls than did the Silvers, at about the time of their admission to the Standard.'

"That Mr. Norris' Buffs are good is to say the truth. They win in the hottest competition, yet produced by other means than those of Forsyth's.

"Though the the Buff is still in its infancy, it breeds fairly true to feather, probably truer than some other new breeds in their early days. Still, I believe that a Buff free from black and ticked feathers remains to be produced. I have written to many fanciers in America, asking for such Buffs, and all answered, 'We have none.' The one considered the best in America, and who produced the highest scoring cockerel, said: 'Some black is visible in all our pens, though some birds are nearly free from it.' Another party said, 'I do not think there are any such Buffs in the world; at least, I never have heard of one.'

"A question is—what shade of buff to breed from. I asked Jos. Winglewitch a few days since, and he said 'In breeding from the darker buff pullets, the tendency is to throw chicks with black tails, and in breeding from light pullets you will get white feathers and a light under-color. So in mating use a standard male with both shades of color in the pullets.' "

F. W. Proctor, in the chapter on Buff Wyandottes (The Wyandottes, 1909 edition, Reliable Poultry Journal Publishing Co.) sums up the blood relationship of the various strains as follows: "Theoretically, the Golden Wyandotte had within itself all the requirements for the perfecting of the Buff variety, given the necessary patience to eradicate the black pigment and evolve its red equivalent. This point is suggested by the mention of Golden specimens in which the black lacing was lacking, suggestive of reversion to the similar colored fowls used by McKeen in developing the Golden variety. These still retained the objectionable slate under-color, a short cut to extirpate which was a cross with the white variety. This was done by Mr. Drevenstedt with immediate results, and this strain in the hands of James Forsyth was very successful, lacking, however, the depth of color shown in other strains, the use of white properly requiring to be balanced by additional red, which the Buff Cochin blood effected."

To the Buff Cochin, the Buff Wyandotte not only owes its superior color properties, but its size and to a certain extent its refinement in type over the crude and angular shaped specimens of the early varieties of the last century

Buff Wyandottes in 1893.—Regarding the shape and color status of the earlier Buff Wyandotte, Irving Crocker, Seneca Falls, N. Y., a noted Silver Wyandotte fancier and also admirer of the new buff variety at that time, remarked in The American Fancier, November, 1893, as follows:

"It may not be generally understood that there are two distinct strains of Buff Wyandottes. One was made by crossing the Rhode Island Reds and the Silver Wyandotte, and the other by crossing the Buff Cochin and the GoldenWyandotte. The former resulted in giving us a fowl somewhat smaller than the Silver Wyandotte, having nice rose combs and clean yellow legs, very plump bodies and great layers. The latter cross produced fowls fully up to the Wyandotte Standard in weight, having fine surface color, but showing considerable white in under-color, primaries and tail, together with single combs and feathered legs.

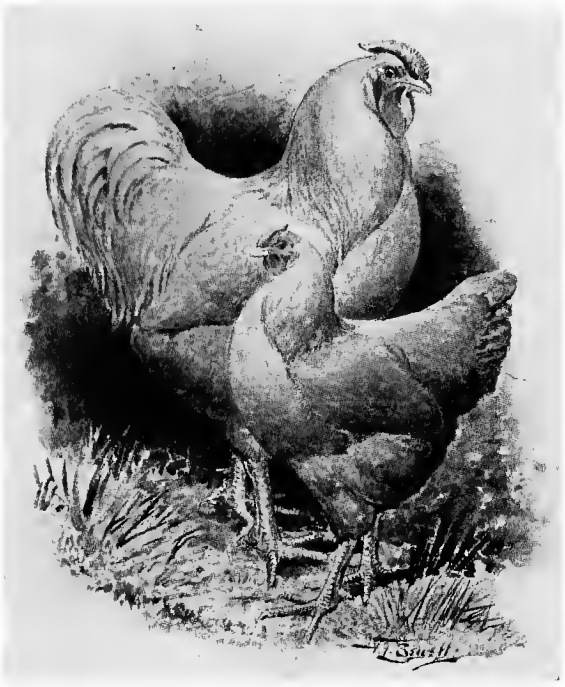
"It will be seen by this that the Cochin cross has to father the greater number of defects, while it has to its credit larger size, better shape and a more even surface color. By combining the two strains I have been able to secure very gratifying results. I believe the coming Buff Wyandotte will be a combination of this kind, using as little of the Cochin blood as possible."

The last paragraph in the above summarizes the facts relating to the values and defects of the component bloods used in producing the Buff Wyandotte, in a clear and unmistakable manner, which will be accepted by intelligent and unprejudiced breeders of Buff Wyandottes with little or no reservation or criticism. Mr. Crocker's reference to the combination of the two strains resulting in gratifying results, as well as his advice to use as little of the Cochin blood as possible, have been justified by present excellent status of the Buff Wyandotte, both as to shape and color.

Early Illustrations of Buff Wyandottes.—The first halftone illustration of a pair of Buff Wyandottes that appeared in American poultry journals was in 1893. It was reproduced from a wash drawing by Franklane L. Sewell, who presented it to J. H. Drevenstedt, Editor of American Fancier. The picture, which is reproduced on the next page, shows the type

seen in the best specimens of that period. It was ten or more years later before photographic reproductions of noted winners appeared in the poultry press, the first of which was that of the Buff Wyandotte cockerel, first at Madison Square Garden, New York, 1904, bred and exhibited by A. C. Hawkins,

PLATE 63.



EARLY BUFF WYANDOTTE TYPE.

1st cockerel and 1st pullet at New York, 1893.

a specimen showing excellent qualities for a Buff at that time, being good in head, points, fairly so in type and smooth in surface color. Regarding winning females, the Buff Wyandotte hen, first at Boston, 1902, bred and exhibited by Mattison & Dutcher, and photographed and illustrated by Artist Sewell, the latter remarks: "But it was a Buff Wyandotte hen exhibited by Mr. Dutcher several years later at Boston that

marked the most distinct progress in breeding for color and type in this variety, for she was not only the best Buff Wyandotte female seen up to that time, but the most even colored one. And from that day on, steady improvement in type and color was noticeable in specimens exhibited at all exhibitions throughout the country.

Admitted to Standard in 1898.—Buff Wyandottes were admitted to the American Standard of Perfection at the twenty-second annual meeting of the American Poultry Association, held at Boston, Massachusetts, January, 1898. The special disqualifications in the first Standard for the new variety were: "Solid white ear-lobes, combs other than rose or falling over to one side or so large as to obstruct the sight. Shanks other than yellow." The general disqualifications being the same as applied to all other breeds having unfeathered shanks. It will be observed that the 1898 Standard was extremely liberal in the allowance made for white in ear-lobes, but in the description of the color of Buff Wyandotees, it was the first publication of its kind to clearly define and describe both the color of the male and female in buff varieties, which read as follows:

"Color of the Male.—Surface color throughout, one even shade of rich, golden buff, free from shafting or mealy appearance; the head, neck, hackle, back, wing-bows and saddle richly glossed with a metallic lustre. Under-color, a lighter shade, as free as possible from all foreign color. Other things being equal, the specimen showing the richest under-color shall receive the preference. Black or white showing in wing or tail shall be considered alike objectionable. Specimens showing different shades of Buff in neck, back, wings or breast, or in two or more of these sections on either male or female, shall be considered a serious defect. One harmonious blending of buff in all sections is most desirable.

"Color of the Female.—Surface color throughout, one even shade of rich golden buff, free from shafting or mealy appearance; the head and neck plumage showing a metallic lustre, the same shade as the rest of the plumage; under-color a lighter shade, as free as possible from all foreign color. Other things being equal, the specimen showing the richest under-color shall receive the preference. Black or white showing in wings or tail shall be considered alike objectionable. Specimens showing different shades of buff in neck, back, wings or breast, or in two or more of these sections on either male or female, shall be considered a serious defect. One harmonious blending of buff in all sections is most desirable." (J. H. D.)

CHAPTER II.

STANDARD REQUIREMENTS FOR COLOR OF BUFF WYANDOTTES.

Disqualifications.

Shanks other than yellow. (See general and Wyandotte disqualifications.)

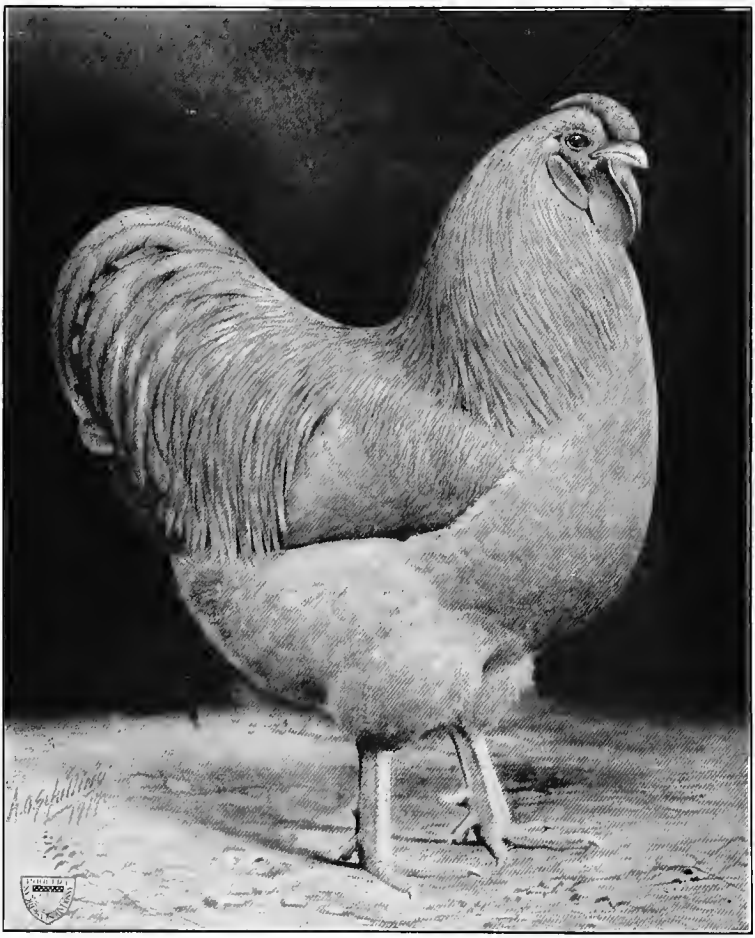
COLOR OF MALE.

Beak.—Yellow.
Eyes.—Reddish-bay.
Comb, Face, Wattles and Ear-Lobes.—Bright red.
Shanks and Toes.—Rich yellow.
Plumage.—Surface throughout, an even shade of rich, golden buff, free from shafting or mealy appearance; the head, neck, hackle, back, wing-bows and saddle, richly glossed; under-color, a lighter shade, free from foreign color. Different shades of buff in two or more sections is a serious defect. A harmonious blending of buff in all sections is most desirable.

COLOR OF FEMALE.

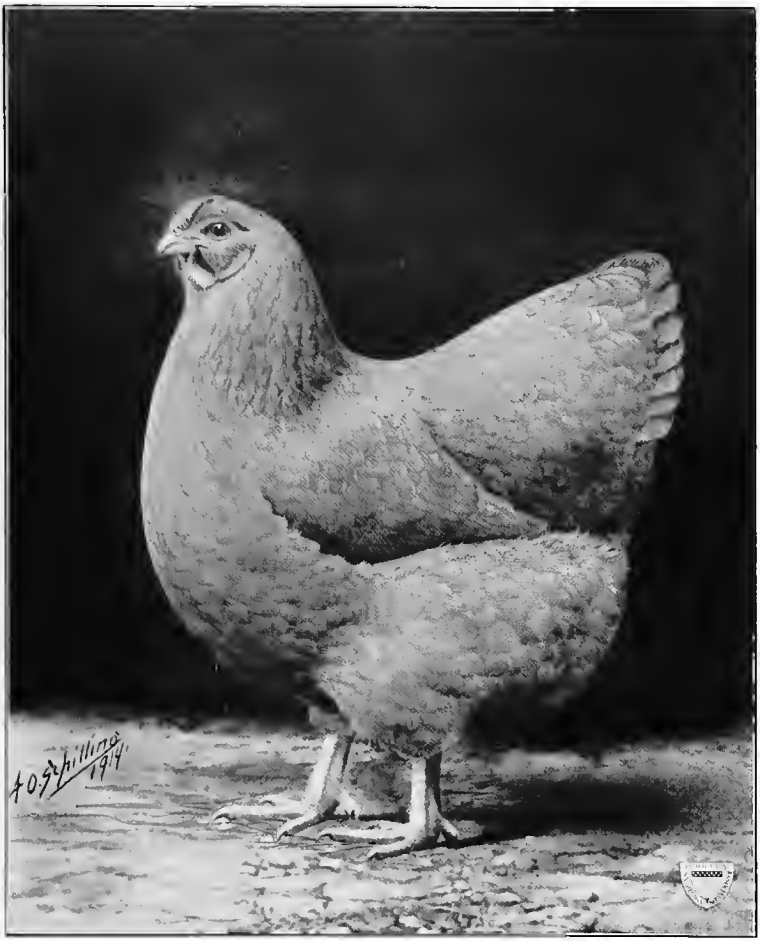
Beak.—Yellow.
Eyes.—Reddish-bay.
Comb, Face, Wattles and Ear-Lobes.—Bright red.
Shanks and Toes.—Rich yellow.
Plumage.—Surface throughout, an even shade of rich, golden buff, free from shafting or mealy appearance; the head and neck plumage showing a luster of the same shade as the rest of the plumage; under-color, a lighter shade, free from foreign color. Different shades of buff in two or more sections is a serious defect. A harmonious blending of buff in all sections is most desirable.

PLATE 64.



BUFF WYANDOTTE MALE

PLATE 65.



BUFF WYANDOTTE FEMALE

CHAPTER III.

SUCCESSFUL METHODS OF BREEDING.

FEW colors have stimulated more interest, or attracted more breeders than buff, and the golden hue of a fowl's plumage continues to arouse enthusiasm among experts and novices alike.

PLATE 66.

Buff Wyandotte male of the old style plumage, showing most pronouncedly the too dark shoulder and wing bow. In the early days of the variety, a most common example of unevenness of color.

PLATE 67.

A Buff Wyandotte female, showing uneven plumage, including the too dark wing bow.

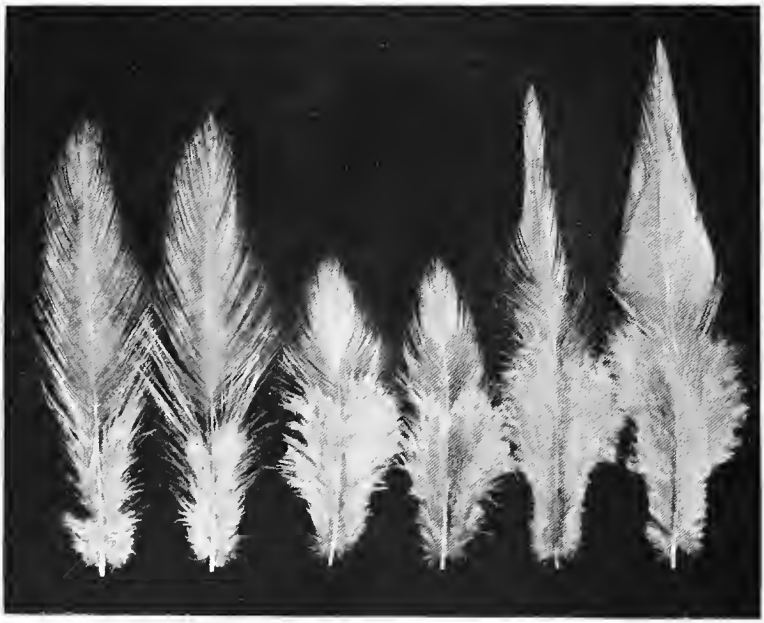
The Buff Wyandotte is one of the most popular of the buff colored breeds. Taking the records of recent years, we find that where Buff Wyandotte breeders gather the classes may be large. At the American Buff Wyandotte Club Meet, Palace Show, New York City, December, 1911, there were 220 Buff Wyandottes exhibited, divided as follows: 26 cocks, 38 hens, 41 cockerels, 45 pullets and 14 pens. These birds were shown by 38 exhibitors. The next club meet at Toledo, Ohio, January, 1913, brought out 267 Buff Wyandottes. Again at Cleveland, Ohio, January, 1915, the club show consisted of 214 birds. At Chicago, December 1916, 20 pens containing 100 Buff Wyandottes were entered, while the single classes comprised 67 more entries.

The quality of the Buff Wyandotte has been vastly improved. Leggy birds are no longer to be seen among the winners in good classes. The long spikes, or points over the

top, of many of the combs of a decade ago have been replaced by rounded points or pebbling, and correct spikes. An even color has been substituted for the variegated shades of buff that the plumage of a single specimen would once exhibit. The representative Buff Wyandottes as seen today are not only of true Wyandotte shape but a harmony of color accompanies their symmetry of form.

Ideal Buff Color.—What is the ideal buff color? There are many shades of buff, a few of which are easily described as cinnamon buff, reddish buff, orange buff, golden buff, lemon buff. The Standard calls for but one of these. It defines the buff of the ideal Buff Wyandotte as "rich, golden buff."

PLATE 68.



BUFF WYANDOTTE FEATHERS.

Two hackles, two back and two saddle feathers showing a rich, even shade of buff throughout surface and undercolor.

There has been more controversy over the correct shade of buff than over any other color which fowls possess. Buff itself is commonly defined in the dictionaries as a "light yellowish" color. The word "yellow", however, does not describe the soft tone of buff. "Buff" may vary and appear in different hues, so "golden" is used in the Standard text to qualify the word "buff" and describe the shade desired. The word "rich" is then added. This attributes the quality of lustre to "golden buff".

PLATE 69.

EXTENDED WING OF BUFF WYANDOTTE MALE.

Clear, even shade of buff, with exception of darker shade showing in front row of feathers on wing bar.

PLATE 70.

1 2 3 4 5

BUFF WYANDOTTE COLOR DEFECTS, COMMON IN WING PRIMARIES OF MALE OR FEMALE

1—Black or brownish black, shading to large portion of buff, peppered with dark spots where black and buff meet. 2—Largely black at base and along the quill, remainder buff. 3—Buff, with considerable black, shading to gray, with white at end. 4—Root of feather white and web next to root white, main portion of webb buff, with white at end. 5—Ideal, clear buff.

PLATE 71.

1 2 3 4 5

BUFF WYANDOTTE COLOR DEFECTS COMMON IN WING SECONDARIES OF MALE OR FEMALE.

1—Black or brownish black, shading to large portion of buff, peppered with dark spots where black and buff meet. 2—Largely black at base and along quill, remainder buff. 3—Buff with considerable black, shading to gray, with white at end. 4—Root of feather and web next to root white, main portion of webb buff, with white at end. 5—Ideal, clear buff.

A color of the right shade is not alone sufficient. There must be a lustre—the color must be vivid and bright.

The particular tone of buff is often a subject of controversy. It is hardly possible to disarm all argument by defining an **exact** tone or shade. The Standard calls for "rich, golden buff"—and the subject will not yield to further definition. Neither can greater exactness be secured and conveyed by color-printing at this stage of that art.

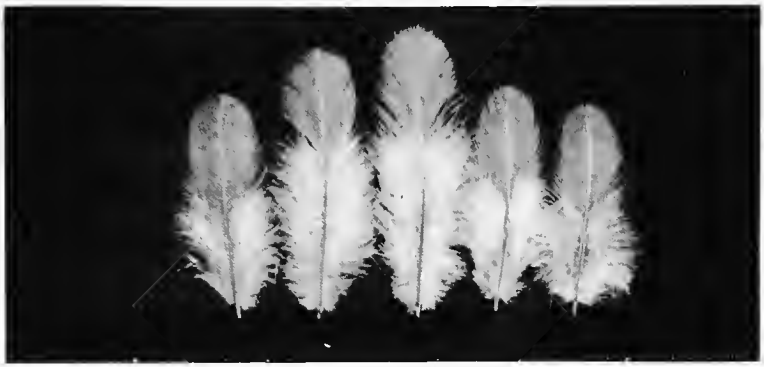
The Standard makers agreed upon "rich, golden buff" as the best expression that language afforded and they wisely added "an even shade" and "a harmonious blending of buff in all sections is most desirable." It is this evenness of color over the entire bird that is of more importance than any par-

PLATE 72.

BUFF WYANDOTTE DEFECTIVE TAIL COLOR.

Half-tone from photograph of tail of Buff Wyandotte cock, showing smaller sickle and larger tail covert marked with chestnut color, a not uncommon blemish in fine buff colored males. This color is very much less defective than gray, black or white, in buff varieties.

PLATE 73.



BUFF WYANDOTTE FEMALE FEATHERS.

Back and breast feathers. Illustrating the breeding value of rich buff-colored quill, though undercolor may be very pale buff.

ticular tone among those that meet general approval. The progress of the variety has been made by securing an even coat of pure buff, free from red, black and white.

Buff is the hardest to produce and maintain of the three solid colors, white, buff and black. Under the score card, buff specimens are handicapped 1 point, black specimens 1½ points and white specimens 2 points, when competing for sweepstake prizes with parti-colored birds. That is, a 95 point White Wyandotte hen, a 94½ point Black Wyandotte hen and a 94½ point Buff Wyandotte hen would stand under the handicap, 93, 93, and 93½ respectively. If a Laced, Penciled or Columbian hen did not score 93½, the Buff would win out as the best Wyandotte hen. A score of 94½ honest points in a Buff Wyandotte hen represents a big accomplishment.

Buffs fade, particularly the females. The sun and rain sometimes cause the feathers to become what is known as "washed out." While deterioration takes place in the plumage of all fowls and the moult is nature's provision for supplying the fowls with a new and beautiful plumage, the effect is particularly noticeable in buffs because the soft tone of this color makes it especially susceptible to wear.

The brightest buff is found on the hackle, back, saddle

and wing bows of the male, for the structure of the feathers of these sections of the male is favorable to lustre. The neck is the only section of the female in which the feather construction is like that of the male. Therefore, one of the requisites of the female, to produce the charming quality of buff color admired in the male, is a rightly colored hackle.

PLATE 74.

BUFF WYANDOTTE TAIL PROPER AND TAIL COVERT, MALE.

Ideal color, even shade of buff throughout. 1—Tail proper. 2—Upper tail proper. 3—Tail covert.

The breast feathers of the male have a smoother structure than his hackle and saddle feathers and, like those of the back and breast feathers of the female, the barbs are perfectly and completely woven together. Accordingly, a male should be picked for breeding whose breast carries the same color as

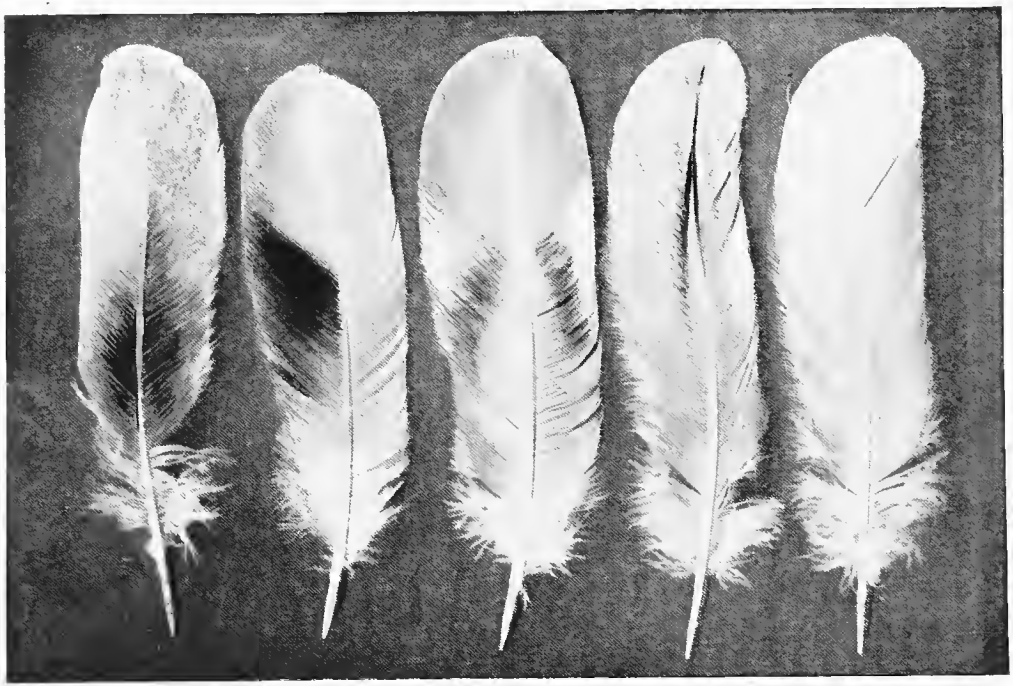
PLATE 75.

1 2 3

BUFF WYANDOTTE TAIL COLOR.

Half-tone from photograph of smaller sickle (1) and tail covert (2), showing the defect of being marked with "chestnut" color. [See illustration of complete tail (page 218), showing same defect.] Also a tail-covert feather (3) of pure even shade of buff. No. 2 shows the defect of very light undercolor.

PLATE 76.



BUFF WYANDOTTE MAIN TAIL FEATHERS OF MALE OR FEMALE.

1—Brownish black at base, shading to buff, with black peppering extending into buff. 2—White at root, considerable black near middle, buff at end. 3—White at root, black or gray in middle, considerable buff at end. 4—White at root, black and gray following quill, gray peppering in buff at end. 5—Ideal buff; best obtainable.

BUFF WYANDOTTE SICKLE FEATHERS OF MALE.

Top, clear, ideal buff; best sickle obtainable. Middle, considerable white at root, remainder buff. Bottom white at root and along sides, black and gray at base, remainder buff.

the female's back, for the back and breast plumage of the pullets may be anticipated by the color of the male's breast plumage.

The back of the female may show some sheen, but this quality is usually limited to pullets. These females commonly fade in color of back and breast with the first moult. The undercolor will often remain good if it was good when the bird was a pullet; and this strength of under-color is an indication of good breeding value.

The Under-Color—The strongest toned buff under-color will always be found lighter than the surface color; however, a strong surface color may be accompanied by light under-color. In this latter case, it seems as if the color pigment had run to the web or surface, and its concentration there had left the fluff or under plumage weak in color. The hackles of males are often weak in under-color, some white showing at base of feathers. Some pullets are quite light underneath in the back section, yet quite pretty on top. These weaknesses of under-color are serious defects in either the show or breeding bird. A bird in which the buff is nicely distributed between the web and fluff of the feathers may fade on the surface, but upon being handled the rich tone of the under plumage will prove to be preserved.

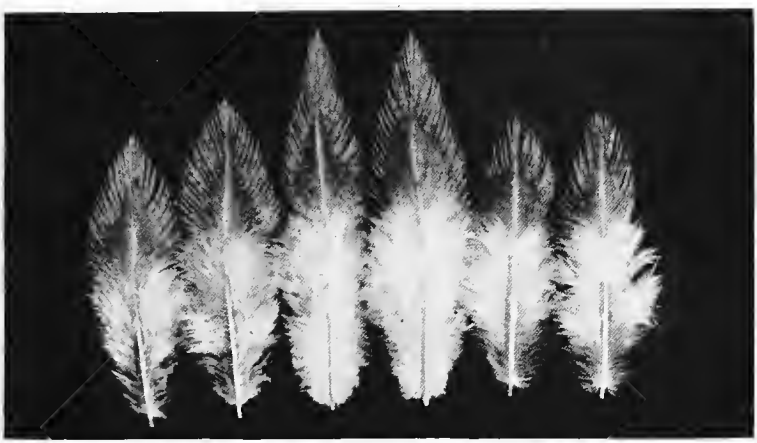
Black in Plumage—Black is always found with red in the plumage of fowls and it would be difficult to find a red specimen free from black. When the red is weakened by dilution with white, the black stubbornly cleaves to its old domains, the tails and wings. It was some years before a clear buff plumage was bred, although clear wings and tails were sought with eager desire by every breeder.

Pure buff wings appeared in pullets, then in cockerels, and the breeding of birds in which the color was so nicely controlled led to the production of pullets, and then cockerels, that were clear buff in tails. As the advancement was made, breeders were doubtful as to the breeding value of clear wings and tails once they were produced, for it was the common opinion among breeders of Buffs that the color was inclined to run out and should be strengthened by breeding birds that showed some black ticking in tail. However, pure buff males and females are now mated together, due caution being taken against weak under-color and white in quills of flight feathers.

White a Serious Defect—Some Buffs show white in the web of the wing primaries and secondaries, also in the main

tail feathers. White is a fault detested by every breeder, although it is not possible to bring it so completely under control that every specimen reared will be free from traces of white; but buff itself is intermediate between red and white. White may suggest three things—that the bird is a cull, that the buff color has run out in breeding, or that constitutional vigor has been reduced by crowded, dirty quarters, improper

PLATE 78.



BUFF WYANDOTTE DEFECTIVE FEATHERS.

Showing (1) shafting in each feather, and (2) light edging.

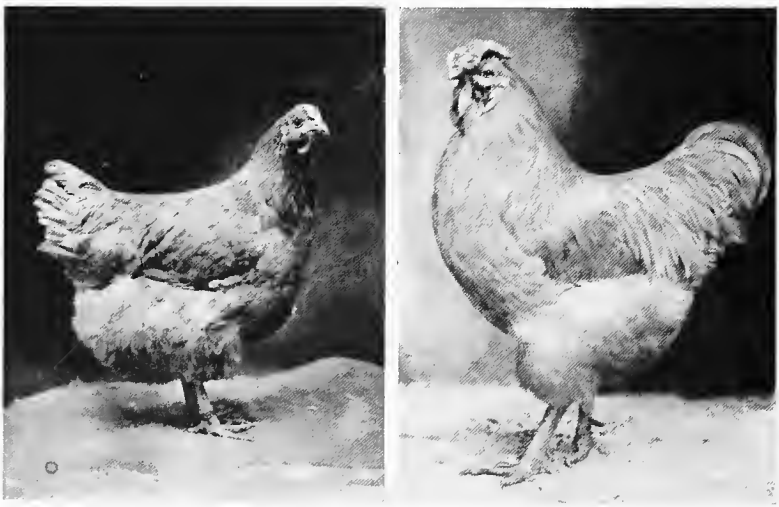
feed or vermin. The latter is a common cause of white showing in birds hatched from eggs of splendidly bred and mated stock.

Sometimes the distribution of buff in a feather is uneven, due to the stippling of the buff with a lighter shade of buff, which produces a mealy effect. Shaftiness is also due to an incorrect distribution of color, the shaft or quill of the feather being lighter or darker than the web or fluff. These should be of an even color. There should be one color over the entire

bird, allowing for that difference in brilliancy due to structure of feather and not to pigmentation. If the breast is two shades lighter than the back, while the wing bows are reddish, the bird, taken as a whole, might possess the right quantity of color, but it is unequally distributed and the sections do not blend harmoniously. These features of unevenness may result from breeding a dark male to light females, or vice versa.

It is not advisable to mate two widely different shades of buff together. The result too often is unevenness of color. Breed standard colored birds together. Let a little peppering or black ticking in the tail suffice to enrich the buff of the progeny, when enrichment is necessary. (F. L. P.)

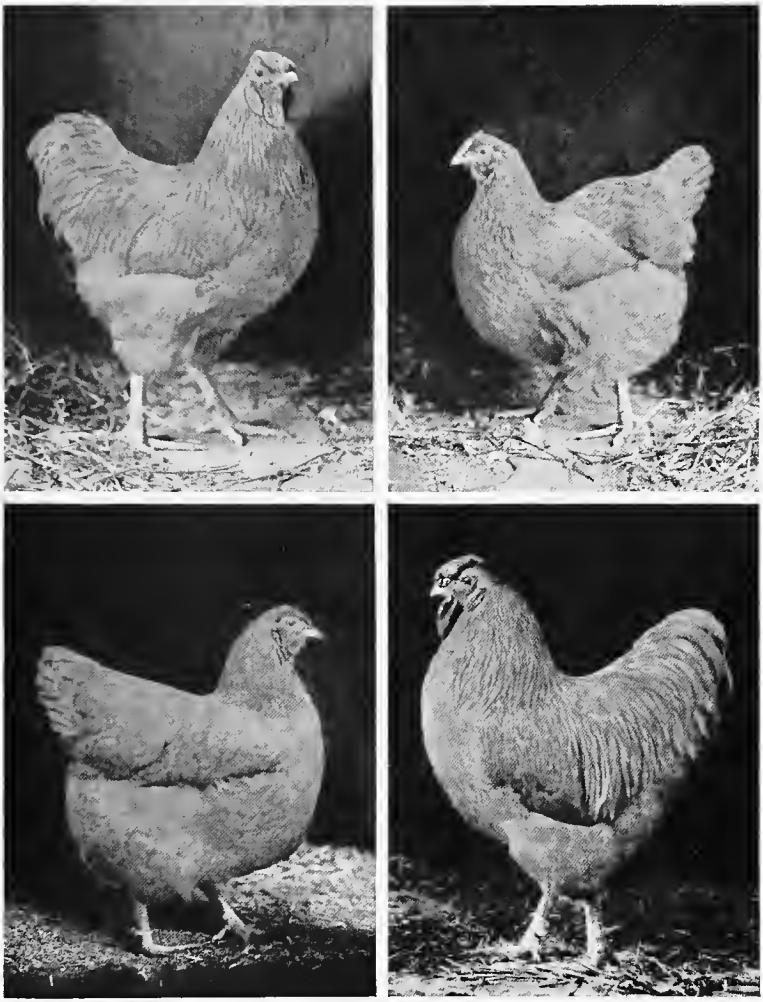
PLATE 79.



DEVELOPMENT OF BUFF WYANDOTTES.

1st hen Boston, 1899, and 1st cock Boston, 1905. It will be noted that the male shown above approached in many respects the Standard requirements for shape of the present period. The female is far too long to even approach the present requirements. See Plate 80.

PLATE 80.



Development of Buff Wyandottes. Above, 1st cock, Chicago, 1907, and 1st hen Chicago, 1907. Below, 1st hen Chicago, 1912, and 1st cock Madison Square Garden, N. Y., 1912.

SECTION V.

CHAPTER I.

PARTRIDGE WYANDOTTES.

HISTORY OF THE ORIGIN AND DEVELOPMENT.

PARTRIDGE WYANDOTES were produced about the same time in the East as in the West. The color markings in the Eastern and Western strains were the same, the Partridge Cochin furnishing color patterns in both, but the crosses with other varieties were different. There is nothing vague or secret about the origin of this new variety, as reliable data exists which, coming from the originators, is substantial evidence of the true origin of the Partridge Wyandotte.

Origin of the Eastern Strain.—George H. Brackenbury, Auburn, N. Y., originated the Eastern strain of Partridge Wyandottes, and his story of its origin appeared in the Poultry Monthly for August, 1891, under the caption "Golden Penciled Wyandottes," as Mr. Brackenbury called the new variety at that time, as follows:

"A Golden Wyandotte male of Daggett strain which produced a few pullets with inner lacing or penciling similar to a Partridge Cochin was bred back on his own pullets. We also have just procured two hens, one-half Golden Wyandotte and one-half peacomb Partridge Cochin, penciled on wings and breast, with a few webless feathers peeping from beneath the scales on legs. These we mated to the Daggett Golden Wyandotte cock and expect to bring out something peculiar in the way of markings, and will, if they turn out well, give description of the chicks in the Fall."

Later, in some poultry journal, Mr. Brackenbury claimed the first pullet of Partridge markings to have been produced from a peacomb Partridge Cochin hen, and remarked: "She had a rose comb and almost clean legs. This pullet was the starting point of the strain of Golden Penciled (Partridge) Wyandottes that we have originated." In the Poultry Monthly, November, 1894, Mr. Brackenbury stated: "We continued

to experiment during the years 1891 and 1892. In the latter year we introduced new blood from a pure breed of fowls to break up and weaken the strong tendency to revert back to the lacing of the Golden Wyandotte, the result of which mating furnished a foundation of the shape and size required when again mated both ways to Partridge Cochins to produce a typical Wyandotte shape."

The source of this "new blood from a pure breed of fowls" was given by Ezra Cornell several years later. Mr. Cornell being then associated with Mr. Blackenbury, as the Golden Penciled Hamburg. "The result of this cross was then mated to Partridge Cochins both ways, that is, a Hamburg-Wyandotte-Cochin cross male was mated to two grand Partridge Cochin females, and three or four of the best Hamburg-Wyandotte-Cochin cross females were bred to a pullet-breeding Partridge Cochin male." After selecting only a few of the best specimens for breeding during the following few years, more Partridge Cochin blood was then introduced, this time by "the best Partridge Cochin hen Byron D. Starr ever produced. This Partridge hen and her full sister were used in our second infusion of Partridge Cochin blood, and again in our third and last infusion of Partridge Cochin blood." Mr. Cornell writes, and adds: "Each succeeding year we are breeding back to one hen now three years old, of Golden Penciled Wyandotte-Partridge Cochin blood, resulting from the third infusion of Partridge Cochin blood, and the blood of this hen is making itself felt or seen in my entire strain of Golden Penciled (Partridge) Wyandottes."

Origin of the Western Strain.—E. O. Thiem, Dennison, Iowa, and Joseph McKeen, Omro, Wisconsin, are the originators of the Western strain, both being engaged in experimenting for some years unknown to each other, with the same end in view, namely, improving the heavy feather-legged Partridge Cochin into the clean-legged and more popular Wyandotte type, but with the beautiful color markings of the former. Mr. Thiem, when he read of Mr. McKeen's Golden Wyandottes in 1882, opened correspondence with the latter, and purchased some of his stock. In 1885, he visited Mr. McKeen and arranged with him to co-operate in the breeding and experimenting in a Partridge Wyandotte cross, this being originally intended as a "source of improvement for the Goldens." As a result of a second visit in 1888, a line of breeding was formulated in order to produce a Partridge Wyandotte and

Mr. Thiem took back with him a Winnebago hen, a gift from Mr. McKeen. The history of the Winnebagos shows it to be one of the foundation crosses in the origin of the Golden Wyandotte, and they resembled the Rhode Island Red of today. Mr. Thiem's own story of the "Evolution of the Partridge Wyandotte" as related by him in "The Wyandottes" (Reliable Poultry Journal Publishing Co. 1919) is as follows:

"The following Spring (1889) I mated this Winnabago hen, also two others, a Cornish Indian, and a Golden Wyandotte, to a peacomb Partridge Cochin male. The Golden Wyandotte cross came all with feathered legs and good necks, about one-half having rose combs. The Cornish Indian cross excelled the others in size, were very dark, especially in the neck, but cleanly striped, and had yellow legs. The Winnebago cross was the finest of all, with a beautiful penciling on the females, the males having a rich lustre upon the black of breast, wing coverts and tail. In 1890, I bred a male of the Golden Wyandotte cross to females of the other crosses; and later in the season mated to cross-bred females the Partridge Cochin male. At the same time I bred Partridge Cochin hens to a Golden Wyandotte male. Mr. McKeen used Partridge Cochin hens with Winnebago and Golden Wyandotte males. These constituted the original crosses and from that time on we exchanged birds, aiming to retain as large a proportion of Cochin blood as possible and still work for clean shanks.

"Speaking from our experience, the originating of new types is not accomplished without endless labor. If it is a question of a new breed, years of experiment are necessary before such can be successfully evolved out of the chaos that naturally follows the mixing of dissimilar breeds. Even the making of a new variety,—substituting one color for another, while retaining the breed's characteristics—if accomplished, as in this instance by the wholesale mixing of breeds, is so serious a task that none should enter upon it without feeling assured that there is an opening for such a production. The growing favor that this breed meets shows that the making of the Partridge Wyandotte was well advised. Its color has been greatly admired in the Cochin, but the outs of that breed had discouraged all but a handful of breeders. The best penciling refused to appear upon the specimens with the fullest plumage, and the best marked females would so often be those too small to be typical Asiatics. The substitution of a Wyandotte type of body removed these objections.

"This Western strain of the Partridges, of which Mr. McKeen and I were exclusively the originators, was of dissimilar makeup from the Eastern stock of the breed worked up by Messrs. Brackenbury and Sarr. If their strain contained no Cornish Indian blood, of which no mention is made, it assuredly missed a quality to which I attributed in our own stock much practical value. Upon the other hand, the presence of Hamburg blood which they avow as one of their crosses was an unfavorable element considering the breed's perfection along its recognized lines of excellence. The first mention of Partridge Wyandottes in the public press was in the Poultry Monthly for October, 1894; an article signed by Joseph McKeen referred to the fact that he and myself had worked together for a number of years in their production. Partridges were first publicly shown in December, 1894, at the Mid-Continental Show at Kansas City. An unofficial Standard for this variety was put in print in 1896; and in the same year our earliest efforts for their admission to the Standard were baffled by opposition that developed in the East, a controversy having arisen over the choice of a name, Mr. Brackenbury being desirous that the needs of his new production with similar markings be considered and that the names Golden and Silver Penciled should be adopted. Our choice of name finally prevailed and as Partridge Wyandottes they were admitted to the Standard in 1901."

Admitted to the Standard in 1901.—Considerable rivalry sprang up between Eastern and Western breeders, with the result that claims of superiority of one strain over the other were freely and frequently made in the poultry press, and a warm and lengthy discussion over the merits of the rival strains followed. Eastern breeders insisted on the new variety being called Golden Penciled Wyandottes, while Western breeders firmly demanded that they be named Partridge Wyandottes. This controversy was settled at Chicago in 1901, when the new variety was admitted to the American Standard of Perfection as Partridge Wyandottes, but for several years afterward leading Eastern breders persisted in calling the latter Golden Penciled Wyandottes. In the opinion of some expert judges, the Eastern bred Partridge Wyandottes were more loose feathered, approaching the Cochin type more cosely than those bred in the West, but the former were more sharply and regularly penciled in the feathers of the backs of females than the latter.—(J. H. D.)

CHAPTER II.

STANDARD REQUIREMENTS FOR COLOR OF PARTRIDGE WYANDOTTES.

Disqualifications.

Positive white in main tail feathers, sickles or secondaries; shanks other than yellow or dusky yellow. (See general and Wyandotte disqualifications.)

COLOR OF MALE.

Head.—Plumage, bright-red.
Beak.—Dark horn, shading to yellow at point.
Eyes.—Reddish-bay.
Comb, Face, Wattles and Ear-Lobes.—Bright red.
Neck.—Hackle, web of feather, solid, lustrous greenish-black with a narrow edging of rich, brilliant red, uniform in width, extending around point of feather; shaft, black; plumage in front of hackle, black.
Wings.—Fronts, black; bows, rich, brilliant red; coverts, lustrous greenish-black, forming a well defined bar of this color across wings when folded; primaries, black, lower edges, reddish-bay; secondaries, black, outside webs, reddish-bay, terminating with greenish-black at end of each feather.
Back and Saddle.—Rich, brilliant red, with lustrous greenish-black stripe down middle of each feather, same as in hackle.
Tail.—Black, sickles and smaller sickles, lustrous greenish-black; coverts, lustrous greenish-black edged with rich, brilliant red.
Breast.—Lustrous black.
Body and Fluff.—Body, black; fluff, black slightly tinged with red.
Legs and Toes.—Thighs, black; shanks and toes, yellow.
Under-Color of All Sections.—Slate.

COLOR OF FEMALE.

Beak.—Dark horn, shading to yellow at point.
Eyes.—Reddish-bay.
Comb, Face, Wattles and Ear-Lobes.—Bright red.

Head.—Plumage, mahogany brown.

Neck.—Reddish-bay, center portion of feathers, black slightly penciled with mahogany brown; feathers in front of neck same as breast.

Wings.—Shoulders, bows and coverts, mahogany brown, penciled with black, outlines of pencilings conforming to shape of feathers; primaries, black, with edging of mahogany brown on outer webs; secondaries, inner webs black, outer webs mahogany brown penciled with black, pencilings conforming to shape of feathers.

Back.—Mahogany brown, distinctly penciled with black, the outlines of pencilings conforming to shape of feathers.

Tail.—Black, the two top feathers black penciled with mahogany brown on upper edge; coverts, mahogany brown, penciled with black.

Breast.—Mahogany brown, distinctly penciled with black, the outlines of pencilings conforming to shape of feathers.

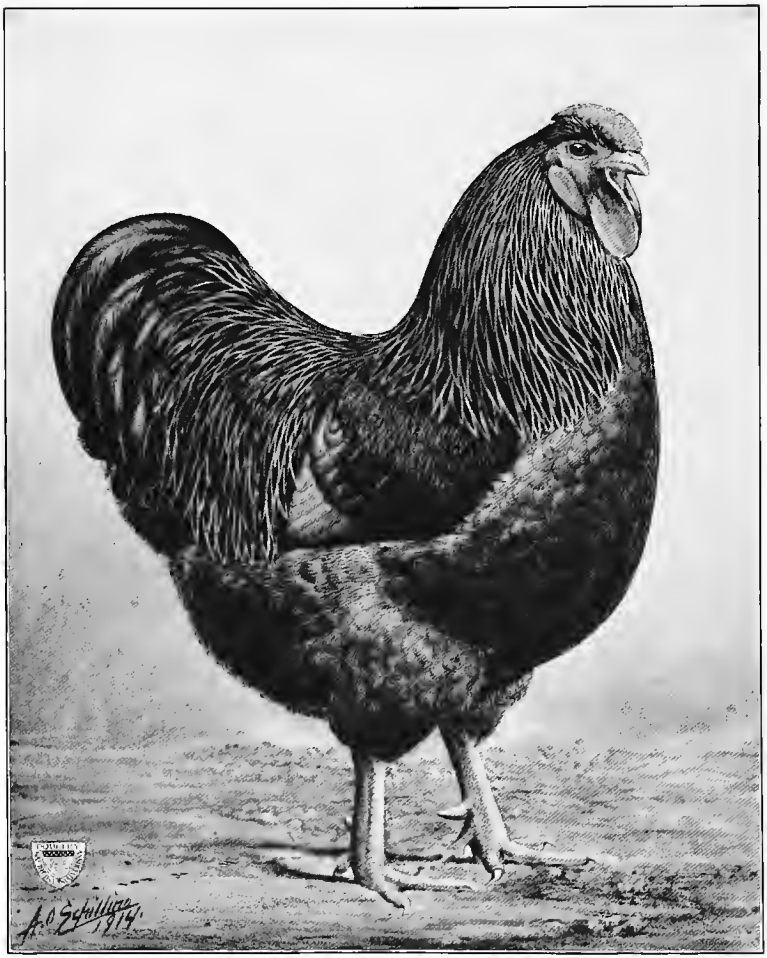
Body and Fluff.—Body, mahogany brown, penciled with black; fluff, mahogany brown.

Shanks and Toes.—Yellow or dusky yellow.

Under-Color of All Sections.—Slate.

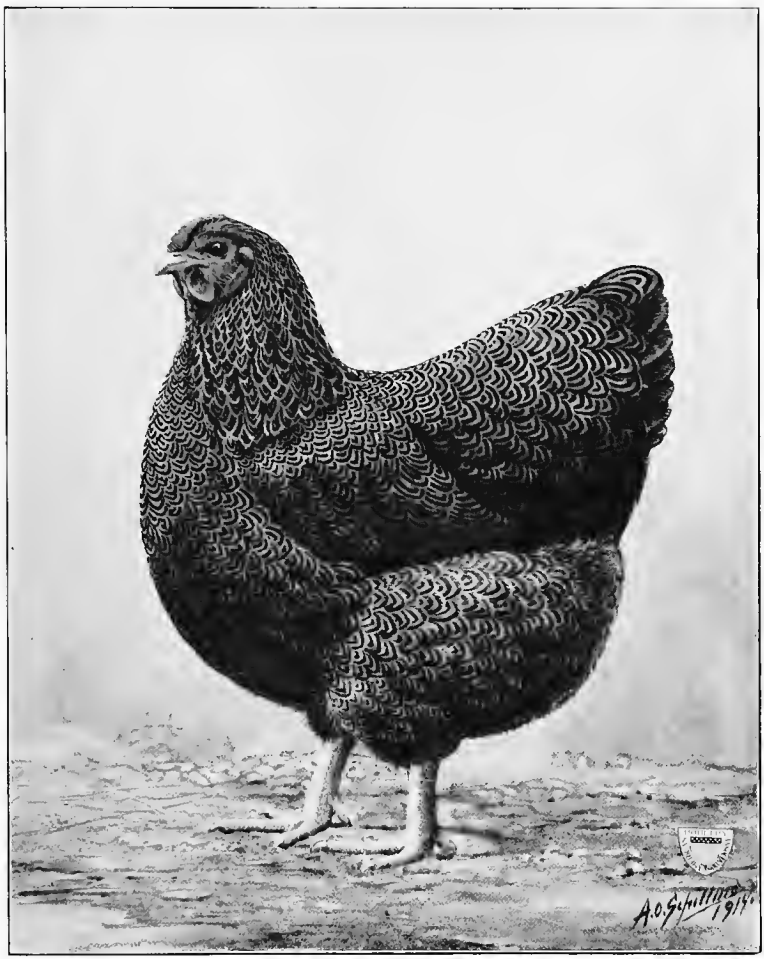
Note.—Each feather in back, breast, body, wing-bows and thighs to have three or more distinct pencilings.

PLATE 81.



PARTRIDGE WYANDOTTE MALE

PLATE 82.



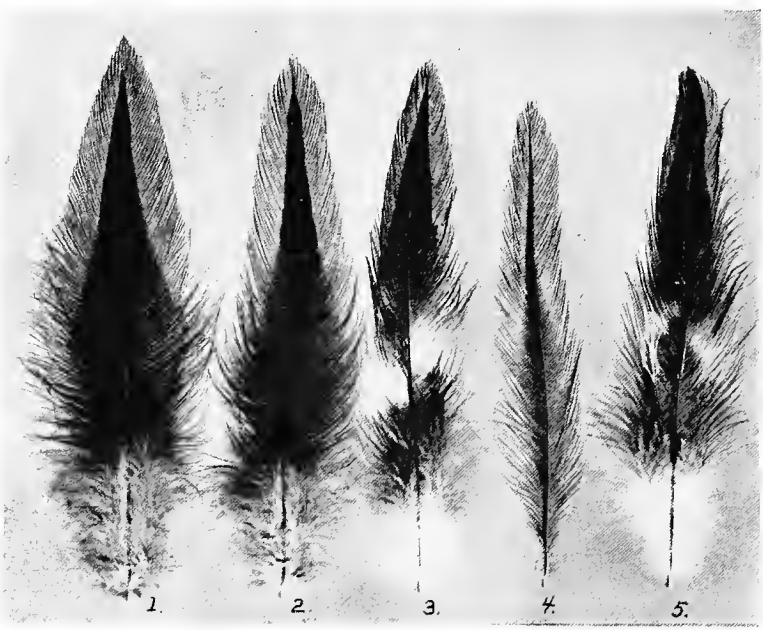
PARTRIDGE WYANDOTTE FEMALE

CHAPTER III.

SINGLE AND DOUBLE MATINGS.

THE widely divergent shades found on the male and female of this variety, to which attention has already been called, together with the complicated and intricate system of markings of the female plumage make the Partridge Wyandotte one of the most difficult varieties in the Standard to breed to an approximate degree of perfection. Therefore,

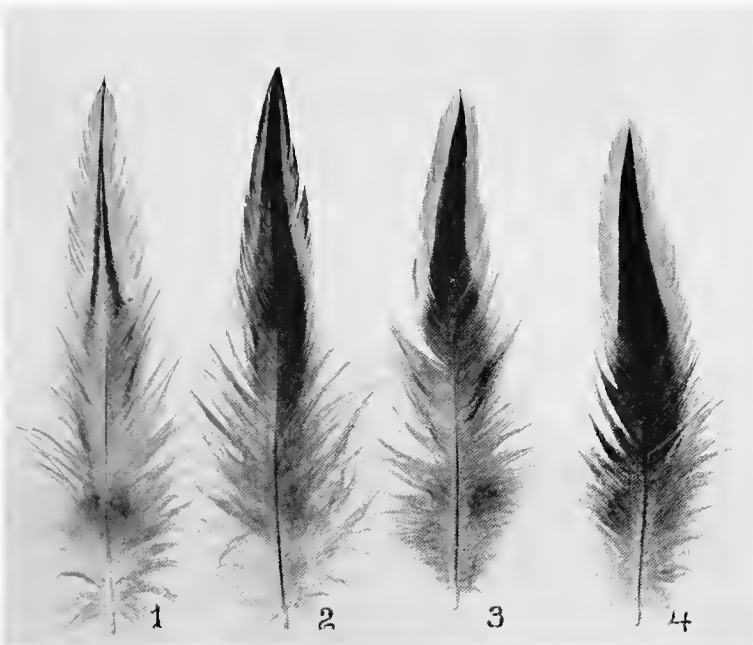
PLATE 83.



PARTRIDGE WYANDOTTE MALE HACKLE.

1—Idealized. 2—Best natural. 3—Defective under-color. 4—Too light. 5—Too dark.

PLATE 84.



PARTRIDGE WYANDOTTE HACKLE FEATHERS.

(From different individuals.)

1—Weak Stripe. 2—Too dark, black running into lacing. 3—Fairly good. 4—Idealized.

experience and skill in selecting and mating on the part of the breeder are assets of considerable value.

Double Matings.—The Partridge variety of any and all breeds furnishes one of the most pronounced examples of the necessity of double-mating, according to the principle of mating as related in Part Two; that a special mating for each sex is necessary when the sexes have different color patterns. In neither color nor in markings are the Partridge sexes alike. If one is not familiar with the Partridge markings, it is inconceivable that males with solid colored feathers in breast, shoulders, wing and tail coverts, will breed females,

the feathers of which sections are of two widely contrasting colors, and furthermore diverge so widely from solid colored web as to show three distinct crescentic pencilings. Yet, a knowledge of the difference in color and color patterns of male and female in Partridge varieties was handed down to us with our first information about Asiatic fowls.

Single Matings.—Many of the breeders today practice or claim to practice single mating. The requirements of the latest (1915) Standard are much more favorable to this method,

PLATE 85.

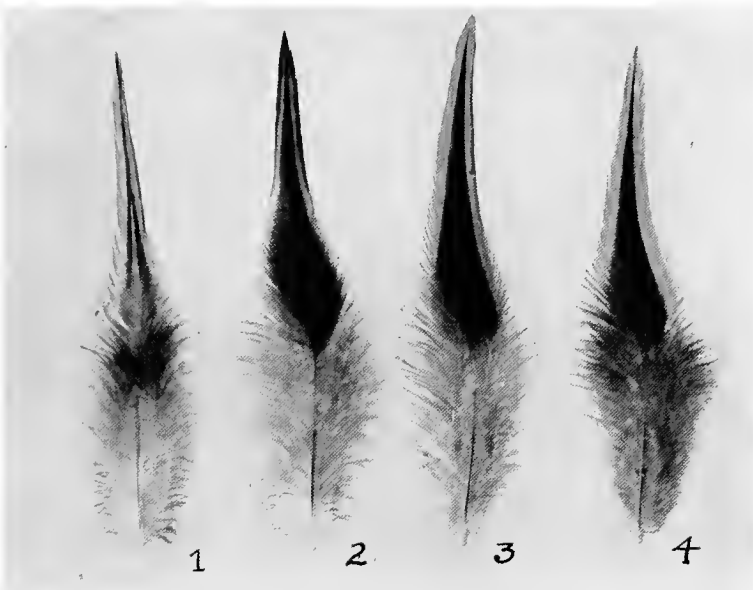
PARTRIDGE WYANDOTTE MALE WING PRIMARY AND SECONDARY.

The above represent the best natural color markings found on the feathers of the best prize males. The natural tendency of this breed is to show primaries and secondaries that lack sufficient red markings. On some of the males having the best surface color these wing feathers have but a slight red edging. These feathers are from a male of a leading single mating strain. The top feather is the primary.

than were the Standards before. First, because penciled necks are permitted on the females. It has always been difficult to breed penciling in all soft and semi-soft feathers, except those of the neck and exclude it from those. By accepting necks that are slightly penciled, we receive more and better penciling in all other sections. Second, because the males that are the sons of the best penciled females have also been prone to show brown edging in the fluff. Thus, we have a beginning toward the acceptance of the sons of the best penciled females as the ideal male. But this son of the female goes further and has more or less brown in the rear-body feathers, and sometimes breast, and the striping in hackle and saddle is sometimes

broken and weak, failing in continuity and lacking in strength, intensity and lustre. Often, only at the end and then for no greater extent than an inch or less does a real stripe appear. So that, if we adhere to the ideals of old (or to present ideals) in males, there is still advantages to be gained by the double

PLATE 86.



PARTRIDGE WYANDOTTE SADDLE FEATHERS OF MALES.

(From different individuals.)

1—Weak Stripe. 2—Too dark, black running into lacing. 3—Fairly good. 4—Idealized.

mating system, because we can more easily conform to Standard requirements in these sections, that is, we can more easily obtain solid black breasts, rear body sections, as well as stronger or more metallic striping in male saddle.

The Popularity of Single Mating.—Some breeders object to double matings because amateurs cannot understand them and small breeders have no room for them. This causes the novice

PLATE 87.

PARTRIDGE WYANDOTTE MALE BACK, SADDLE AND BREAST.

1—Best natural, back. 2—Best natural, top saddle. 3—Best natural, saddle hanger. 4—Best natural, saddle at base of tail. 5—Best natural, wing-bow. 6—Defective saddle. 7—Defective breast, red on outer edge.

to look for simpler problems, or, in other words, to take up the breeding of some variety regarded as less difficult. The idea is prevalent that double mating is a disadvantage to any variety. Single mating is then practiced to create or maintain popularity rather than to produce superior specimens. As a commercial expediency, it may be wisdom to develop Partridge Wyandottes along single mating lines. That will manifestly depend upon the sentiment of the times. This much is granted, that as long as breeders will adhere to the practice of single matings, they will meet in the show-room upon even ground, because all their specimens will be produced by single mating. There can be no complaint of unfair advantages. In breeding much attention must be paid to the penciling and color of the females. Should the development of these female characters produce a male line that was not of sufficient exhibition merit to be satisfactory, to the breeder, it is obvious that females with stronger striping and with less penciling in the hackle must be selected to produce males of greater exhibition merit.

The Ideal Mating.—The mating sought at the present time is one that will produce both exhibition males and females of

PLATE 88.

PARTRIDGE WYANDOTTE FEMALE HACKLE.

1—Idealized. 2—Base of hackle. 3—Center. 4—Top. 5—Defective. 6—Defective. 7—Defective.

Nos. 2, 3 and 4 represent best natural feathers as they are found at the present time. 5 shows irregular penciling. 6 represents defective hackle feathers of pullets, which often correct the defects in the second molt. 7 has too much black in center, but is sometimes found on cockerel breeders.

sufficient quality to win. Such a mating usually consists of a male of rich red, though not dark enough or deep enough to obscure the black striped in neck and saddle, as even in the red shade of neck, shoulders, back and saddle as possible, with some red in fluff feathers, and possibly a little in body and lower breast feathers may be tolerated in many matings and even sought in a few. Such a male is now considered fairly good exhibition color, notwithstanding the minor discrepancies when compared with the Standard description. It will be noticed that the fluff or soft feathers back of and between the thighs may be "tinged with red". Generally, the red extends beyond these limits and is found in the body feathers. This is tolerated by most judges, though not permitted in the words of the Standard as interpreted, literally, because penciling is both desired and required in this section of the female plum-

PLATE 89.

PARTRIDGE WYANDOTTE FEMALE PRIMARIES AND SECONDARY.

Hens two or more years old, if well penciled in other sections, usually show primaries peppered on the inner web like No. 1. Pullets from a single mating strain usually have well marked primaries like No. 2, but when they become hens and their penciling improves the primaries become peppered. No. 3 is a secondary.

PLATE 90.

PARTRIDGE WYANDOTTES, DIFFERENT PATTERNS OF PENCILING ON WING SECONDARIES OF FEMALES.

1—On lower (left hand) edge, nearly parallel, then turning irregularly outward to edge, on upper side breaks up into irregular cross penciling, which should be nearly solid black except near end of the smaller upper secondaries. 2—Is barred instead of penciled parallel to edge. 3—Penciling runs parallel to edge nearly all through lower (left hand) web. Approaches ideal marking.

age and it is conceded that females with pencilings which extend well to the rear of the body produce males with red in this section. In a general way, it may be stated that the sires and brothers of the most perfectly and consistently penciled females show considerable red in these sections that correspond to the penciled sections of the females, breast and wing coverts possibly excepted; though the better the penciling of these female sections, the more apt are the corresponding sections on the sires and brothers to show red or brown.

PLATE 91.

PARTRIDGE WYANDOTTE PULLET SECONDARIES.

As a rule pullets show pencilings on wing secondaries that run across the feather instead of lenghtwise or conforming to the edge of the feather. The above feathers were taken from the wing of one pullet.

The female desired to mate to such a male is the one that conforms most closely to the Standard of perfection in color and markings, and shape, also, of course, but this feature is treated under that head, and one treatise does for all varieties of Wyandottes.

The Standard Partridge Wyandotte female should present a rich, glossy appearance. In color she should be neither too light nor too dark.

The penciling in such penciled section should follow the general profile of the feathers and consist of three or more distinct pencilings.

PLATE 92.

PARTRIDGE WYANDOTTE ADULT FEMALE TAIL.

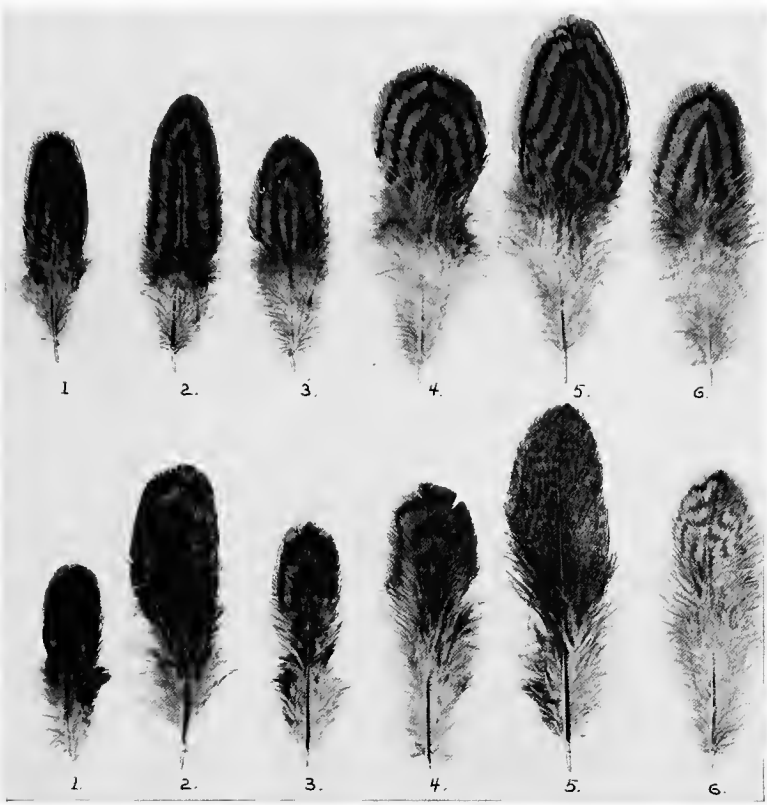
Nos. 3 and 4 represent two top main tail feathers of a Partridge Wyandotte hen. Nos. 1 and 2 are the two tail feathers immediately beneath. These feathers illustrate the development of penciling on matured hens which are exceedingly well penciled in other sections. While the Standard requires all tail feathers except the two top ones to be black, all well penciled hens show more or less markings in main tail feathers as shown in 1 and 2. Pullets as a rule have black main tail feathers, but these feathers become more or less penciled as they become hens and their penciling in other sections improves.

PLATE 93.

PARTRIDGE WYANDOTTE FEATHERS, SHOWING THE DIFFERENCE IN MARKINGS OF PRIMARIES AND SECONDARIES OF MALES AND FEMALES.

Male: 1—Primary. 2—Secondary. Exhibition specimens.
Female: 3—Primary. 4—Secondary. Exhibition specimens.

PLATE 94.



PARTRIDGE WYANDOTTE FEMALE FEATHERS.

1—Wing-bow. 2—Wing-bar. 3—Back. 4—Cushion. 5—Tail covert. 6—Body fluff.

The feathers in the upper row were taken from several of the best prize winners of the present period. They are from a single mating strain which is said to produce both show cockerels and show pullets from the same mating. The feathers in the lower row are defective ones from the section with the corresponding number. They illustrate most of the prevailing defects including peppering, irregular penciling, zig-zag penciling, too heavy penciling, etc.

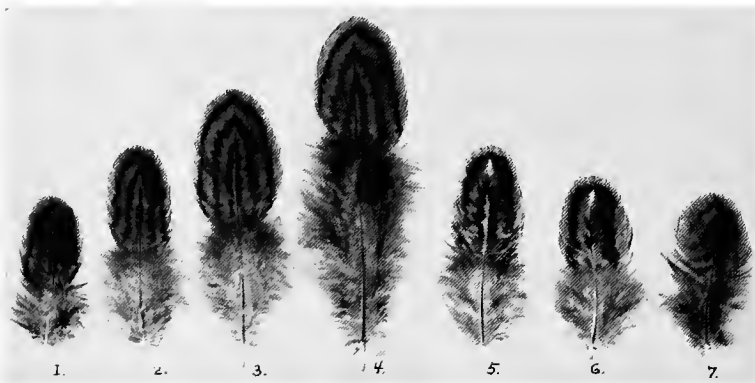
The head should be a mahogany brown; the neck feathers bright red, closely matching the shade of color desired on the neck of the male; wing bows, back, breast, tail coverts, body, fluff and thighs a rich, mahogany-brown, penciled with black; the wing primaries black, with an edging of mahogany-brown on the outer web; the inner web of the secondaries, black; the outer web, mahogany-brown penciled with black.

The main tail feathers black, except that the two top feathers should be mahogany-brown on upper edge.

Beak, eyes, comb, face, wattles, ear-lobes, shanks and toes should be the same color as that required for the male.

Different interpretations will, as naturally, be placed upon such color terms as reddish-bay and mahogany-brown, but on the whole, breeders, exhibitors and judges agree very well as to the correct and incorrect shades. Lighter shades of mahogany-brown are, of course, preferred if the male is inclined to be too dark and darker and richer shades if the male of the mating is rather too light or bright. Females that have the required number of distinct pencilings which conform closely to this outline of the feather and which are

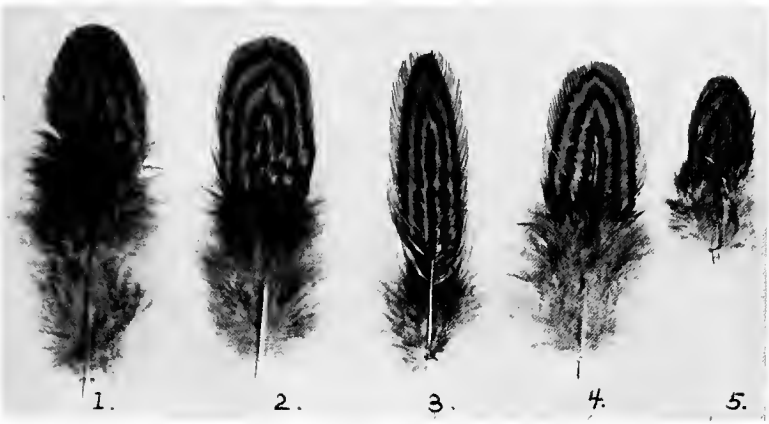
PLATE 95.



PARTRIDGE WYANDOTTE FEMALE BREAST.

1—Breast near throat. 2—Front of breast. 3—Lower breast. 4—Breast where the feathers overlap those of body. These are best natural feathers from winning specimens. Nos. 5, 6 and 7 show different defective breast feathers.

PLATE 96.



ENGLISH PARTRIDGE WYANDOTTE FEMALE FEATHERS.

1—Cushion. 2—Back at base of hackle. 3—Hackle. 4—Breast. 5—Shoulder.

English Partridge Wyandottes (females) are much lighter in ground color than our Standard requires. The penciling is finer and narrower and there are more lines of penciling to each feather.

carried out in detail in all sections, particularly in body and thighs, in which penciling is usually the weakest are as much highly prized for breeding as for exhibition purposes, and even more so, though they may be one or two shades removed from the shade of mahogany-brown most acceptable as ideal, will be selected for the best matings.

The conclusion will be rightly drawn that such matings will produce splendid females, but there must exist a tendency toward weak hackle and saddle striping, which may become so much in evidence that the high quality of the males is very seriously impaired.

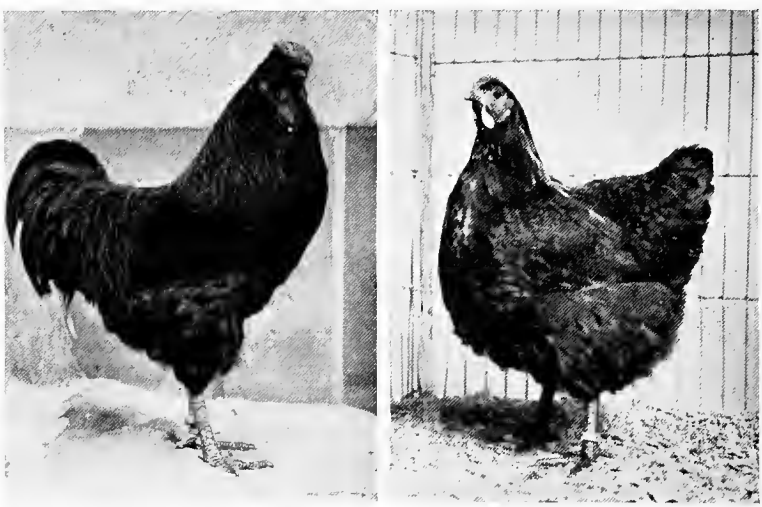
In that case, and if one is determined to breed males of the highest exhibiton merit, special matings for that purpose must be employed.

Of the male for this mating little or nothing need be added to the description in the Standard of Perfection and the explanation already offered herein. It is merely necessary to repeat

the old rule so often repeated, to use the best male available, that is, the one that most nearly conforms to the Standard requirements, other qualities, particular lines of breeding and length of the breeding lines, being on par.

The females selected would, of course, as far as the color is considered, be of those which had particularly rich, red color and strength of black striping in the neck. In making selections for richness of color, do not overlook the short, small feathers under the throat. A rich color of medium to rather rich shade is very desirable for females that are to be used for breeding exhibition males exclusively. (A. C. S.)

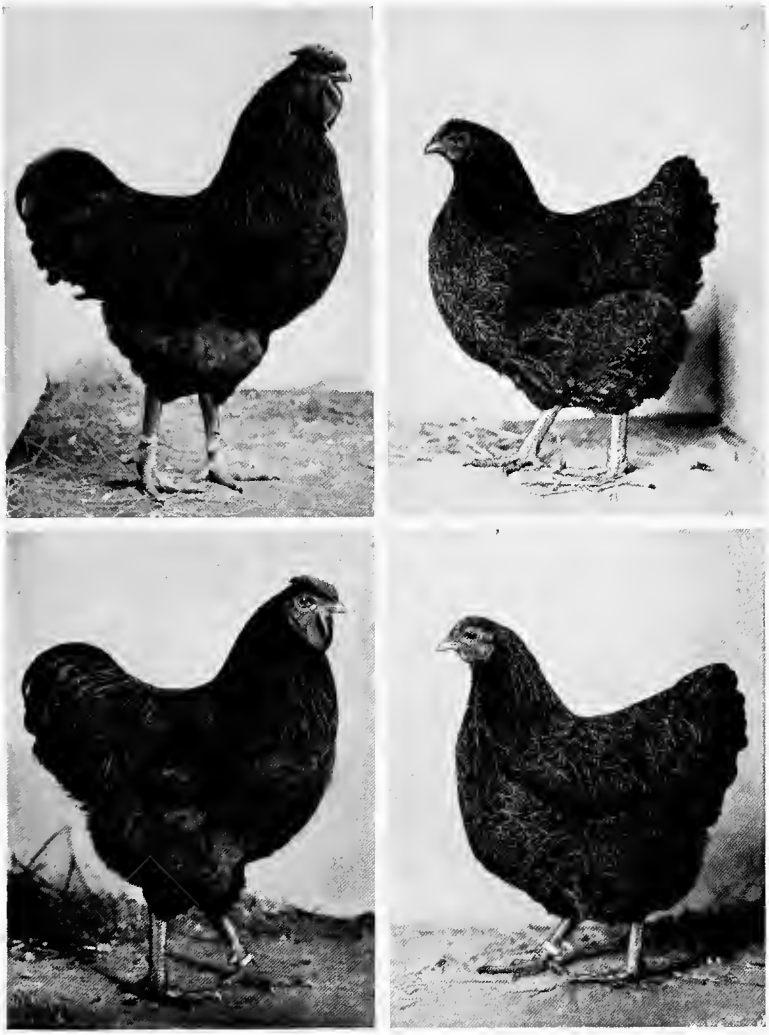
PLATE 97.



DEVELOPMENT OF PARTRIDGE WYANDOTTES.

1st cock Boston, about 1900, and 1st hen Boston, 1908. See also Plate 98.

PLATE 98.



Development of Partridge Wyandottes. Above, 1st cockerel Madison Square Garden, N. Y., 1913, and 1st hen Chicago, 1915. Below, 1st cockerel Madison Square Garden, N. Y., 1918, and 1st pullet Madison Square Garden, N. Y., 1918. See also Plate 97.

SECTION VI.

CHAPTER I.

SILVER PENCILED WYANDOTTES.

HISTORY OF THE ORIGIN AND DEVELOPMENT.

THE Silver Penciled variety of the Wyandotte family originated in New York State in 1894, George H. Brackenbury, of Auburn, N. Y., being accredited the originator, but due credit must be given to the late Ezra Cornell for his valuable aid in perfecting this new variety. Mr. Brackenbury's first cross was a Partridge Wyandotte male bred to Dark Brahma females, the progeny of this mating being composed of females with the Silver or Dark Brahma color markings, with the male showing more of the Golden Duckwing color, especially in the red found on the wing feathers.

Mr. Cornell used a Silver Laced Wyandotte male with Silver Penciled Hamburg females. The two strains were bred together the following year with excellent results, as Mr. Cornell's statement that "in 1897 we had better penciling on Silver Penciled Wyandotte females than I had ever seen up to that time on Partridge Wyandottes", will prove.

The following history of the origin of the Silver Penciled Wyandotte by George H. Brackenbury, printed in the American Fancier, September 21, 1895, can be accepted as authentic:

"This extremely rare and handsome variety of the Wyandotte family has not as yet been introduced, although mentioned by Mr. McKeen a great many times in connection with his Golden Penciled Wyandotte articles, one of which reads: 'Mr. Brackenbury is also making some experiments, which he thinks will be a success, to produce a Silver counterpart or Silver Penciled Wyandotte.' Also similar mention in numerous circulars sent out by Messrs. McKeen and Thiem. They are as yet confined to a limited number of clean legged, rose combed cockerels, a few strongly penciled, clean legged, rose combed hens and the same of pullets, from one of which the enclosed feathers were taken. No doubt the public who have

read Mr. McKeen's articles will infer from similar worded articles and circulars written and sent out two or three years hence that Mr. B. is still 'making some experiments, etc.,' and probably is imagining that my experiments were all recently made, by which I mean made the past Spring. This is a mistake, if true, for which possibly I alone am to blame in not giving him (McKeen) more definite information regarding the 'Silver Penciled counterpart'. It may not have occurred to Mr. McKeen that possibly my experimenting for a Silver counterpart would date as far back as the length of time in which he has been experimenting with the Golden Penciled variety. It may interest the poultry loving public to know that Ezra Cornell of Ithaca, N. Y., is a Wyandotte man, also an 'experimenter' Mr. Cornell wished to assist me in producing and perfecting the Silver Penciled Wyandotte, which he is now doing. Mr. Cornell and myself must claim the honor of being the first to produce a fowl of the Wyandotte type and penciling in plumage like that seen in good specimens of the Dark Brahma. Inasmuch as the writer was the first to mention the fact that such a variety was being produced and this article of introduction being the first to appear in any publication, the honor of introducing the Silver Penciled Wyandotte must certainly be ours. To Mr. Cornell and the writer belong the credit of being the first to begin experimenting and first to produce a fowl of this type and color. We do not wish the public to imagine that this variety is already perfected, nor do we wish to be besieged with inquiries by would-be purchasers as none of these fowls or eggs will be offered for sale for some time to come. We are producing two entirely distinct strains not related, each originating his own strain, the make-up of each strain being the same only where one has used a male or female, as the case may be (of the breeds that form a part of their make-up) the other has used the opposite sex. I have not used one drop of mongrel blood, but found it necessary to use the blood of three different breeds of fowls, all well known and popular breeds. The only difference that exists between the Golden and Silver Penciled Wyandottes will be in ground color, both having strong, distinct penciling. There is no doubt but that they will be greatly admired, especially by their introducers."

Mr. Cornell, in calling attention to the excellent combination of qualities possessed by the Silver Penciled Wyandottes even at that early period of their existence, realized that the Standard must be made to fit the variety, if the latter was to become one of the most beautiful and popular varieties of the

Wyandotte family, for as he expressed it, "we must know to a certainty the plumage of the male, which corresponds to that of the female. Do not demand a clean black fluff on the male or a well pencilled fluff on the female, or yellow legs. Develop the plumage to its greatest perfection from single matings and let the shanks come whatever color they will. Then make the Standard to fit the birds and we will have a variety to bank on." (The Wyandottes, R. P. J. Publishing Co.)

Mr. Cornell, from the time of its origin in 1894 until his death in 1902, made a thorough study of the mating and breeding of the Silver Penciled Wyandotte, succeeding in developing it to high degree in type and color. E. G. Wyckoff secured the entire stock after Mr. Cornell's death, and rapidly pushed the variety to the front by consistent advertising and exhibiting in the United States and Canada, as well as in England. Stock was sent to the latter country at a very early date and Silver Penciled Wyandottes became popular at once. Mr. Wyckoff also sent a shipment of sixty Silver Penciled Wyandottes to Australia in 1903 to take part in an International laying contest held there, all arriving in excellent condition.

Admitted to the Standard in 1895.—Ezra Cornell's forecast as to what the color Standard for Silver Penciled Wyandottes should be in order to preserve the variety as a useful all-round fowl, which could be bred from single matings, met with the approval of many of the older breeders of the variety, if not with the Standard makers, at least in some particulars. Silver Penciled Wyandottes were admitted to the Standard of Perfection in 1905. This first Standard for the new variety did not prove entirely satisfactory in the descriptive matter, but the illustrations of ideal male and female were approved of, excepting the solid black striping in the hackle of the female. The color of legs in female, being described as yellow, was objected to by breeders who advocated single matings. The 1910 Standard was an improvement over the 1905 issue, except in the illustrations, which did not meet with the approval of Wyandotte breeders as a rule, as they lacked the graceful curved lines characteristic of the Wyandotte. More latitude was given to color of legs, which could be yellow or dusky yellow in either male or female, but the solid black striping in the female still remained. To the color description of the female was added: "Each feather in back, breast, body and wingbows to have two or more distinct pencilings."

Before the present Standard (1915 edition) was revised,

considerable discussion by breeders of Silver Penciled Wyandottes over the proper color markings of the female took place, Rev. T. W. Harwood, Pembroke, N. H., writing us on January 21, 1911, as follows: "Discussion at the Club meeting developed a curiosity to know who are responsible for the change in the new Standard (1910). Two years ago the Club voted to request the Revision Committee that the Standard for Silver Penciled Wyandottes remain. Have the New York breeders effected these changes? Mr. Wason of Grand Rapids, Michigan, sent me the first information that the new Standard is to require solid black stripe in hackle of female and he commented adversely on the change. Pretty nearly all of the best Silver Penciled Wyandotte females exhibited at Boston had penciling in hackle. A pullet of mine took first and I was at loss to know why until I heard the judge remark 'She has a cracking good hackle'. I had never looked at her hackle. Personally I preferred a pullet of Mr. Robinson's with splendidly bold penciling, clear out to tail and running up into hackle. The judge, a Columbian Wyandotte man, no doubt dreams black hackles and tails but a real Silver Penciled man dreams penciling. There was no great opposition to permitting the two-line penciling. Some of us favor it as making it easier to get strong bold penciling, also it helps the single mating idea. Mr. Rogers advocated a bold penciling but was for producing it with as many as four lines, the three outside ones being wide and definite. It was news to him that a two-lined penciled feather is to become Standard. All but Mr. Hathaway, who specializes in males, favored breast ticking and light undercolor in males. That is the best thing that could happen for those of us who are trying to produce males and females from one mating. Mr. Baker and I exhibited males and females produced from one mating."

A complete revision of the text and illustrations of the 1910 Standard resulted in the present 1915 Standard. In Silver Penciled Wyandotte females the important changes made were in the neck description, which now reads: "Center portion of feathers, black slightly penciled with gray; feathers in front of neck same as breast," and, in the note, "Each feather in back, breast, body, wingbow and thighs to have three or more distinct pencilings."

This is the Standard of today and one which conforms closely to the color ideals of the breeders of Silver Penciled Wyandotte females. (J. H. D.)

CHAPTER II.

STANDARD REQUIREMENTS FOR COLOR OF SILVER PENCILED WYANDOTTES.

Disqualifications.

Shanks and toes, other than yellow or dusky yellow. (See general and Wyandotte disqualifications.)

COLOR OF MALE.

Head.—Plumage, silvery white.
Beak.—Yellow or dusky yellow.
Eyes.—Reddish-bay.
Comb, Face, Wattles and Ear-Lobes.—Bright red.
Neck.—Hackle, web of feather, solid, lustrous greenish-black with a narrow edging of silvery white, uniform in width, extending around point of feather; shafts, black; plumage in front of hackle, black.
Wings.—Bows, silvery white; coverts, lustrous greenish-black; primaries, black, except a narrow edging of white on lower edge of lower webs; secondaries, black, except lower half of lower webs which should be white, except near end of feathers at which points the white terminates abruptly, leaving end of feathers black.
Back.—Silvery white, free from brown; saddle, silvery white with a black stripe in each feather, tapering to a point near its lower extremity.
Tail.—Black; sickles and coverts, lustrous greenish-black; smaller coverts, lustrous greenish-black, edged with white.
Breast.—Black.
Body and Fluff.—Body, black; fluff, black slightly tinged with gray.
Legs and Toes.—Thighs, black; shanks and toes, yellow or dusky yellow.
Under-Color of All Sections.—Slate.

COLOR OF FEMALE.

Head.—Plumage, silvery gray.
Beak.—Yellow or dusky yellow.
Eyes.—Reddish-bay.
Comb, Face, Wattles and Ear-Lobes.—Bright red.
Neck.—Silvery white, center portion of feathers, black slightly penciled with gray; feathers in front of neck same as breast.
Wings.—Shoulders, bows and coverts, gray with distinct dark pencilings, outlines of which conform to shape of feathers; primaries, black with a narrow edge of gray penciling on lower webs; secondaries, upper webs, black, lower webs, gray, with distinct dark pencilings extending around outer end of feathers.
Back.—Gray with distinct dark pencilings, outlines of which conform to shape of feathers; feathers free from white shafting.
Tail.—Black, except the two top feathers, which are penciled on upper edge; coverts, gray with distinct dark pencilings, outlines of which conform to shape of feathers.
Breast.—Gray with distinct dark pencilings, outlines of which conform to shape of feathers.
Body and Fluff.—Gray with distinct dark pencilings, reaching well down on thighs; fluff, gray, penciled with a darker shade.
Legs and Toes.—Thighs, gray with distinct pencilings; shanks and toes, yellow or dusky yellow.
Under-Color of All Sections.—Slate.
Note.—Each feather in back, breast, body, wing-bows and thighs to have three or more distinct pencilings.

ILLUSTRATIONS OF SILVER PENCILED WYANDOTTES.

For Standard illustrations of this variety, male and female, see pages 12 and 13.

CHAPTER III.

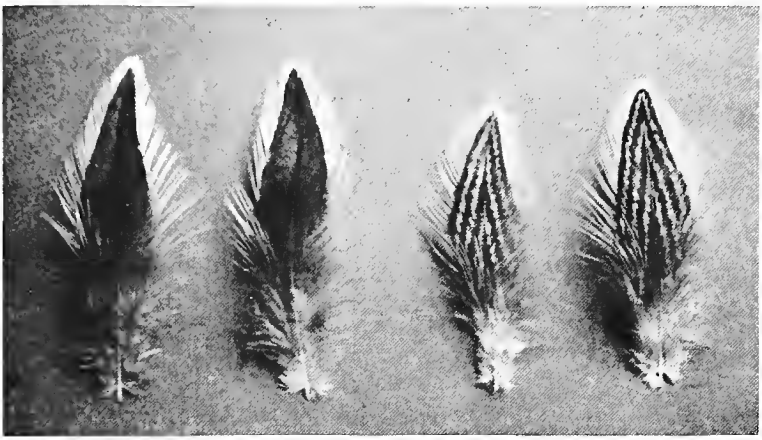
THE MATING PROBLEMS.

THE laws governing the breeding of Silver Penciled Wyandottes to produce the highest Standard color markings in exhibition males and females are practically the same as those which govern the breeding of Partridge Wyandottes, the striping in saddle and hackle feathers of the male and the penciling of the feathers of the female being of similar pattern, the only difference being in the colors—read carefully the Standard description. Silver Penciled Wyandottes when properly selected and mated, will breed a large per centage of both males and females which will run true to form, or in other words, possess the characteristic Wyandotte type, for they have not been subjected to out-crossing in order to obtain color improvements. So far as type or shape is concerned, breeders of Silver Penciled Wyandottes will experience little or no difficulty in maintaining the Standard shape of the breed. Reasonable care must be exercised in the selection of breeding males and females. Males should possess close fitting body plumage, deep bodies, full breasts, good length of back, strongly arched necks with abundance of hackle, broad V-shaped tail, not carried too high, smooth, straight shanks of medium length, capped by strong well-rounded hocks, that are well defined below the body line. With such a male, who preferably should be a little under rather than over Standard weight, mate strong, large, well matured dams, possessing good standard shape.

The color markings of the Standard Silver Penciled Wyandotte male and female being the same as those found on the Standard Dark Brahma male and female, the matings to produce the highest type of exhibition cockerels and pullets would also be the same. Dark Brahmas were bred to a very high state of perfection in color markings several years ago and to one of the most noted and most successful breeders of this old variety, Newton Adams, we are indebted for the following rules governing the mating of breeds or varieties possessing the color markings of the Dark Brahma:

"Exhibition cockerels and pullets of the highest quality cannot be produced by a single mating. A male of exhibition points mated to dark females with well-striped hackles, not so particular about penciling in body plumage, should produce show cockerels. Exhibition females mated with a male out of same line (the line that produces show pullets) is what I use to produce show pullets. I do not pay much attention to his under-color, but a whole lot to what he is out

PLATE 99.



1 2 3 4

SILVER-PENCILED WYANDOTTES.
NECK FEATHERS OF FEMALES.

Solid, for producing best exhibition males.

Penciled, as seen on females, for producing females with best penciled body sections.

1-2—Solid black stripe, necessary to produce Standard exhibition colored hackles on males. 3-4—Penciled stripe, as found on females possessing the finest penciling over breast, back, wing and body sections, necessary to produce the best exhibition colored females.

Note:—This section, neck, presents the most marked variance in plumage of the females of the cockerel-breeding and pullet-breeding lines. A solid black stripe in hackle, especially in the lower portion of the lower or longest hackle feathers, is required and very much desired in an exhibition male. To obtain such, it is generally necessary to breed from females that possess the same character.—(Ed.)

of. I must know that his dam and his sire's dam are of the best possible. In show points he is not much of a looker as a rule, hackle and saddle badly broken, plenty of white on breast, thighs and fluff, which of course gives him a light colored appearance. The striping of hackle and saddle should

PLATE 100.

1 2 3 4

MALE AND FEMALE WING FEATHERS FROM WELL MARKED SILVER PENCILED WYANDOTTES.

Male: 1—Primary. 2—Secondary.
Female: 3—Primary. 4—Secondary.

PLATE 101.

1 2 3 4 5

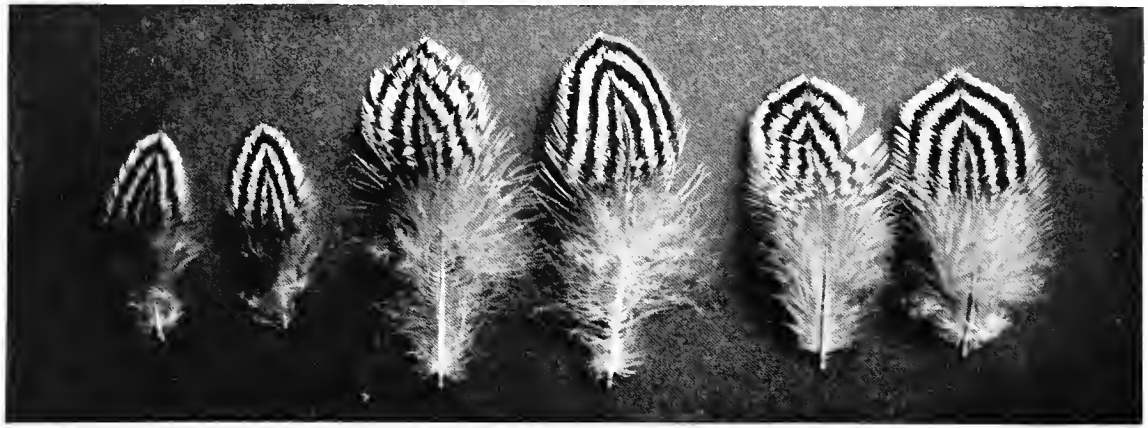
SILVER-PENCILED WYANDOTTE FEATHERS OF FEMALES.

1—Wing primary. 2—Wing secondary. 3—Lower main tail.
4—Upper main tail. 5—Top tail feather.
(Best obtainable.)

be well defined for cockerel breeders. Hackle in females for pullet breeders is apt to show more or less penciling in it. You see it rather bucks nature to put penciling on all body feathers except neck and it will finally push into hackles more or less."

We will add that the most perfect pencilings are not obtained the first year. Pullets which appear rather light in color, especially under the throat and upper breast, will moult into finely penciled hens as a rule. Regarding single matings

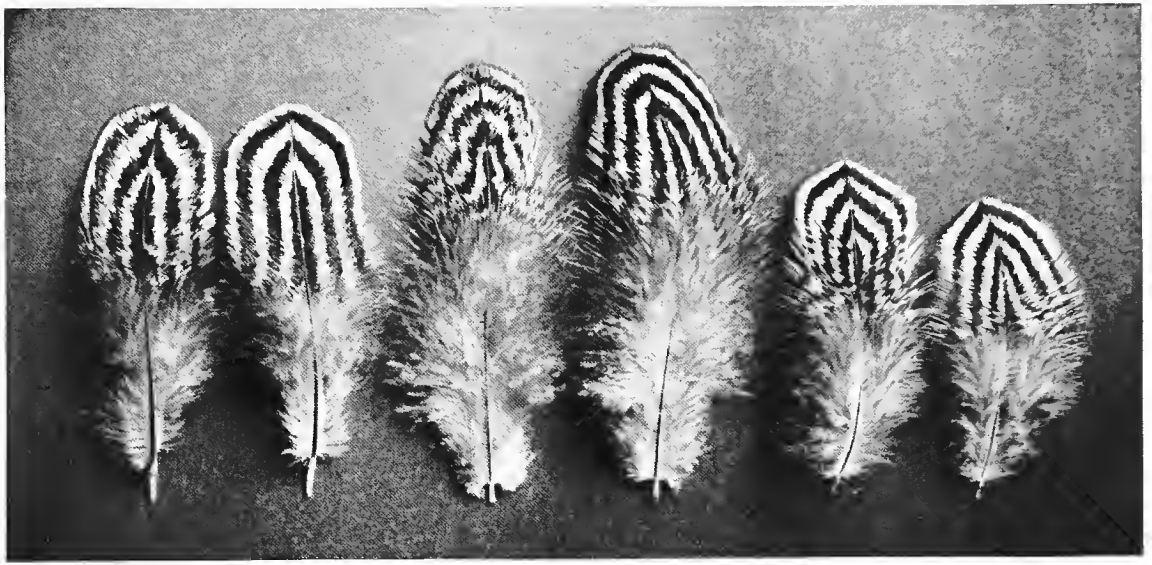
PLATE 102.



1 2 3 4 5 6

SILVER-PENCILED WYANDOTTE FEMALE FEATHERS.

1, 2—Wing Front. 3, 4—Back. 5, 6—Upper Breast.
1—Ordinary. 2—Idealized. 3—Ordinary. 4—Idealized. 5—Ordinary. 6—Idealized.



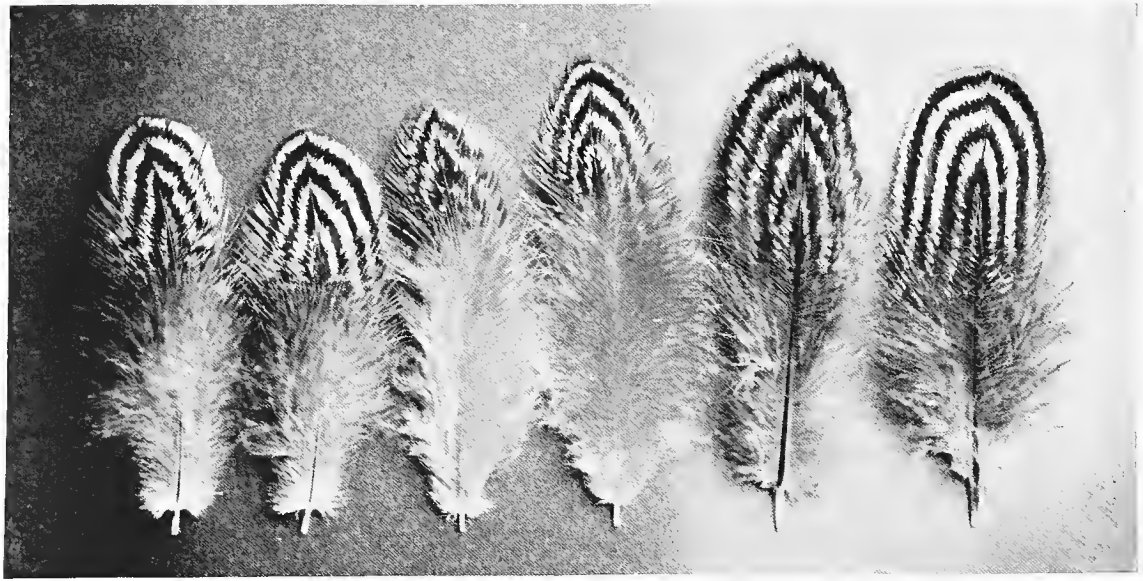
1 2 3 4 5 6

SILVER-PENCILED WYANDOTTE FEMALE FEATHERS.

Wing Covert. Rear Back. Lower Breast.

1—Ordinary. 2—Idealized. 3—Ordinary. 4—Idealized. 5—Ordinary. 6—Idealized.

PLATE 104.



1 2 3 4 5 6

SILVER-PENCILED WYANDOTTE FEMALE FEATHERS.

Front Fluff. Rear Fluff. Tail-Covert.

1—Ordinary. 2—Idealized. 3—Ordinary. 4—Idealized. 5—Ordinary. 6—Idealized.

producing good results, Jas. S. Wason is authority for the following:

"These birds were all produced by the single mating and high scoring males and females came from the same pen.

"The mating from which these birds were produced consisted of females with a clear, soft gray ground, clearly penciled with three distinct black marginal stripes or circles. The male that headed the pen was a bird of Standard size, nice yellow legs; bay eyes, silvery white top color and solid black breast. It is generally believed that white ticking on breast of male is preferably in pullet matings but my experience does not confirm this theory. On the contrary, my best results have come through a male bird as described above, providing the under-color is not too dark. The preference being for a lead under-color shading lighter as it approaches the skin. Such a male having good striped neck and saddle and having beetle green on tail and wing bars will give excellent results if mated to females with the soft gray and black combination rather than the objectionable reddish color so often seen in this variety of fowl.

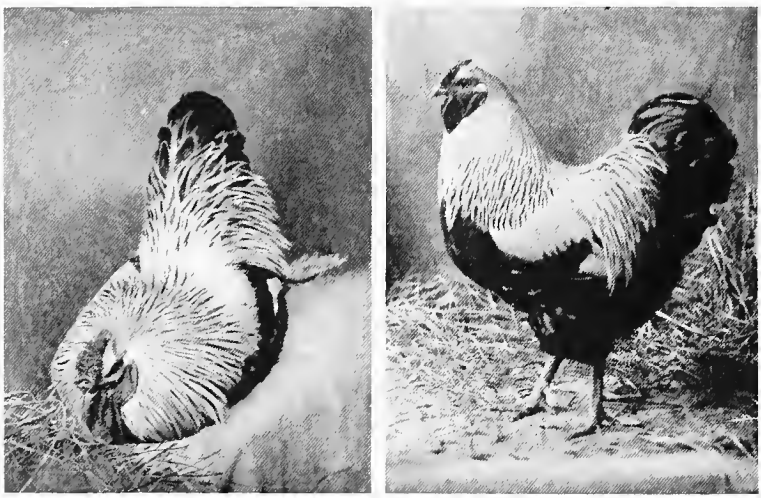
"In conclusion will say that size of bird and color of eye are two important items in selecting breeders; small specimens and those having light or fish colored eyes are to be avoided." (The Wyandottes.)

Line Breeding.—In selecting breeding stock, the elimination of inferior specimens and the building up of superior strains by careful selection of sire and dam is of paramount importance. This is what is termed in-and-in breeding, or more recently and popularly known as line-breeding, which is in line with Nature's laws that govern the selection and perpetuation of the beasts of the earth and the birds of the air, or in other words, the survival of the fittest, and the destruction of the weaklings. That line breeding can be carried on indefinitely without destroying the vigor and stamina of the different races of thoroughbred live stock and Standard-bred poultry and pigeons, provided always, however, only the strong and vigorous males and females are selected as breeders, has been advocated by noted live stock authorities for many years, and found to be sound in theory when proven by the results obtained from practical experiments in breeding and building up breeds of horses, cattle, sheep, swine and dogs, or in developing and perfecting strains of poultry.

As the veteran breeder of Dark Brahmas significantly re-

marked when referring to the selection of a pullet breeding male, "I must know that his dam and his sire's dam are of the best possible." The science of color breeding as well as breeding to ideal type is that of close selection of sire and dam. Without such close blood relationship or line breeding, no fixed color patterns can be successfully attained and maintained. Like begets like. The old rule followed by chicken farmers years ago, of changing "roosters" each year succeeded

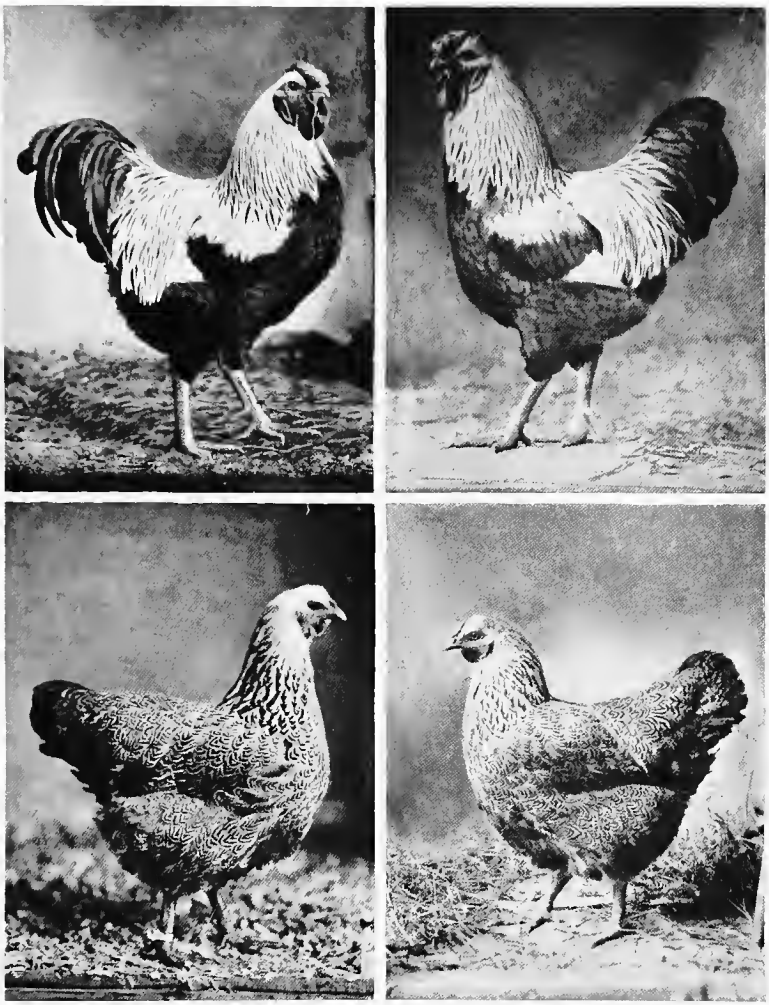
PLATE 105.



1—Photo showing neck and saddle of an exhibition cockerel which is also a good pullet breeder. Note the broad strip in both sections. 2—A winner at New York and Boston, 1915-16.

in mongrelizing the American barnyard fowl. Even in this advanced age of poultry culture the advice is frequently given in agricultural journals to farmers, that they must make a cross with a male of an unrelated strain in order to prevent their flock from "running out." This changing of males, if followed, will be for the worse more often than for the better. When new blood must be added to a breeding flock, select it from the same line or strain of blood, no matter what it may

PLATE 106.



Upper left, 1st cock Boston, 1913. Upper right, 1st cock Boston, 1907. Lower left, 1st pullet Madison Square Garden, N. Y., 1915. Lower right, a winner at New York and Boston, 1916. Winning Silver Penciled Wyandottes.

cost. The closer we breed, the nearer we will get what we want.

Lewis F. Allen, one of America's most noted authorities on cattle, in his book, "American Cattle", expresses his views on breeding. Those relating to line breeding of cattle principally, contain several statements that can be applied to the breeding of other live stock. At the beginning of this most interesting chapter, Mr. Allen lays down the following fundamental rule. "Uniform perfection or excellence, or the highest quality in appearance cannot always be expected in the produce of even an almost perfect sire and dam. Every now and then, in the finest herds, there will come a creature of inferior appearance, decidedly lacking some prominent good point possessed by both parents, or one of them. Yet even this inferior production having the good blood of his parents, constitution, health, and all else being right, may prove as good a sire or dam as the very best of their superior relatives."

The same rule can be applied to poultry, in fact there are numerous instances on record where such inferior specimens were used successfully in the breeding pens. A breeder of Silver Wyandottes lost one of his best males, and hesitated to use a cockerel with hens in the pen, because he was not prepossessing in appearance. But he was line-bred, with the best of blood flowing in his veins. Acting on the advice of a friend, he forgot all about the looks of the bird and placed him at the head of the pen of birds of the same line of blood and succeeded in getting a fair percentage of high class youngsters from the mating, whereas had a cross with foreign blood been made, the result might have proved disappointing. LIKE WILL BEGET LIKE ONLY WHEN THE BLOOD IS THERE. (J. H. D.)

SECTION VII.

CHAPTER I.

COLUMBIAN WYANDOTTES.

HISTORY OF THE ORIGIN AND DEVELOPMENT.

THE early history of the Columbian Wyandotte is well known. Its origin and its name are credited to one man, Mr. B. M. Briggs, now of Rhode Island.

Mr. Briggs was born at North Collins, New York, in 1854, studied for the ministry, and took up the breeding of poultry as a recreation. He became interested in the Silver Wyandotte in the early days of this breed when it was known as the American Sebright, but the name of Briggs came into the limelight with the advent of the White Wyandotte, for he was probably the first to advertise this variety and publish cuts of it and descriptive articles about it. Mr. Briggs' White Wyandottes had resulted from breeding together white sports that occasionally hatched from eggs of his Silver Wyandottes.

In 1887, Mr. Briggs sold a lot of White Wyandottes to an amateur fancier in Western New York who lived near him and who had Barred Plymouth Rocks. By a mishap, a cross was effected between a Barred Rock male and one of the White Wyandotte females, and as a result two pullets were hatched with striped hackles and bodies inclined to be white. Mr. Briggs purchased the two pullets, for he viewed their color scheme as a prophecy of a new variety that would have the general make-up of the White Wyandotte with the color of the Light Brahma.

Mr. Briggs mated the two pullets the following spring to a fine White Wyandotte male, and was pleased and encouraged with the chicks produced. These new fowls were now three-quarter Wyandotte.

He continued to cull and carefully breed his stock until 1893, when he began to introduce his new variety of Wyandottes as the Columbian, having taken the name from the Columbian Exposition or World's Fair which was held in Chicago that year. Mr. Briggs sold a number of eggs for hatching

in 1893 in both the East and the West, but sold no stock until 1894.

The first Columbian Wyandottes to be exhibited were shown by Mr. Briggs at the Providence, Rhode Island, Show, December, 1894. In 1896 he exhibited five birds at the Boston Show and in September of that year disposed of his entire stock; but five years later again took up the Columbian Wyandotte, securing birds from his original line.

In a letter to the American Fancier, April 25, 1896, the originator stated: "Many fanciers have seemed to doubt the declaration that they (Columbian Wyandottes) contain no Light Brahma blood, but we are ready to affirm that no introduction of Light Brahma blood has ever been made and no such blood exists except it may have existed in the strain of American Sebrights owned and bred by me so long ago. Until this year I have kept the origin a secret, but have concluded it better that the fraternity should know their origin than form so many erroneous conclusions and still remain in the dark."

In more recent years, however, beginning about 1900 and extending for a decade, Light Brahma blood was infused. Mr. Briggs expressed the opinion that: "Too strong an infusion of Light Brahma blood would have a tendency to destroy the Wyandotte type," and "if we want the Wyandotte we must conform to the Wyandotte type." Nevertheless, some breeders, having little confidence that they could obtain the perfection desired from the stock already existing, attempted to make the variety anew by the cross breeding of White Wyandottes and Light Brahmas. The results were often disappointing, because birds from the cross often failed to inherit the strong black markings of the Brahma.

Whenever the Brahma was used, at least two years were required to breed a few birds free from the objectionable feathers or stubs on shanks. Furthermore, the crossing of the pea combed Brahma on the rose combed Wyandotte produced a round rose, or strawberry comb. These short, round combs, sometimes almost devoid of spike, which were once so common in Columbian Wyandottes, were the result of crossing the rose and pea type. The production had neither pebbling like the pure rose comb, nor distinct ridges like the pea. The skin of the comb was corrugated, especially noticeable in the round, flat comb of the male, and altogether it formed an unfortunate type of comb to be possessed by the Wyandotte.

Encouraging results were obtained both in America and in England by crossing White and Silver Penciled Wyandottes, the latter having the heavier color-type of the Dark Brahma. This cross produced true Wyandottes in shape and good Columbians in color.

One experienced Wyandotte breeder of the West, Mr. E. O. Thiem of Iowa, employed a Buff Wyandotte as well as a White Wyandotte hen in a cross with a light colored Silver Penciled Wyandotte cockerel. To his surprise, all of the chicks had the markings of a Light Brahma with Wyandotte shape and comb. Mr. Thiem then employed some Light Brahma blood.

Mr. Theo. Hewes, in "Wyandottes in Colors and How to Judge Them," states that: "Many breeders with the same object in view have used various crosses in their efforts to produce a breed with Wyandotte shape and Brahma markings. Several varieties of the Wyandottes were used by the different breeders while the Light Brahmas have in almost every instance been used as one of the crosses to better establish the color."

In his "Principles and Practices of Poultry Culture," Mr. John H. Robinson states that breeders who took up the Columbians resorted to other crosses, that the White Wyandotte and Light Brahma were used, and also the White Wyandotte and Rose-Combed Rhode Island Red. It may be a surprise to some fanciers to know that buff and red fowls should have been employed in the production of a Columbian Wyandotte. This point is discussed at some length by Mr. F. W. Proctor in "The Wyandottes." He takes up in detail the derivation of the Columbian color, the essence of his deductions being that the Columbian color is derivable from the black-red by the obliteration of color from the red areas, leaving white in such sections. When in Belgium some years ago, the present author heard the late Mr. Louis Vander Snickt refer to the Columbian color as representing the best of vigor because it was a combination of all colors, i. e., all primary colors existing in chickens.

The liberal use of Light Brahma blood not only fixed the black markings but cleared the white. The brassy backs of the early males and the creamy color of their consorts handicapped the birds in the eyes of critical fanciers. The white of the Columbian should be as pure, or as free from creaminess in the female and brassiness in the male, as it is in good White Wyandottes.

In chronicling his recollections of the early Columbian Wyandottes, Mr. J. H. Drevenstedt wrote in the American Poultry World, April, 1910: "The introduction of Light Brahma blood was necessary to get the desirable color markings. * * * We remember some of the early Columbian Wyandottes quite well, and * * * were not carried away with the color points at all. The hackles of males and females were weak in striping and very light in color. There was very little lacing in tail coverts and the primaries of both males and females were nearly white with no really sharp black visible. * * * We believe it was John Evans, an English fancier living in Rhode Island in the latter part of the nineties, who started breeding Columbian Wyandottes with plenty of Light Brahma blood in his mated pens. Mr. Evans had been successful in getting some very strong Light Brahma Bantams in color and evidently knew how to get quick and satisfactory color results with Columbians, for he produced some remarkably good pullets even in those days, the hackles and tail coverts as well as the flights showing strong white and black markings. With these different strains developing in the East, it was not long before the leading breeders of other varieties began to take an interest in Columbian Wyandottes and they got busy at once with foundation stock, which they purchased and improved by judicious selection and infusion of Light Brahma blood."

The Columbian Wyandotte was admitted to the Standard at the Cincinnati meeting of the A. P. A., January, 1906, and first appeared in the second edition of the 1905 Standard, published in 1906. The following year 115 specimens were exhibited at the New York show. A number of prominent breeders took up the variety, and substantial progress was made in breeding Standard Wyandotte shape and Light Brahma markings. During the next few years many of the old faults were eliminated, and the modern Columbian Wyandotte became a dependable reproducer of good quality stock.

At the Boston Show, January, 1910, the exhibit of Columbian Wyandottes formed the largest entry of any one variety in the show, there being 213 birds exhibited by 29 exhibitors. The variety was then emerging from the formative period, and is now in the hands of keen fanciers and successful breeders who have combined with typical Wyandotte shape the sharp black markings and pure white of the Light Brahmas. They are also breeding good rose combs. (F L. P.)

CHAPTER II.

STANDARD REQUIREMENTS FOR COLOR OF COLUMBIAN WYANDOTTES.

Disqualifications.

One or more solid black or brown feathers on surface of back of female; positive black spots prevalent in web of back, except slight dark or black stripes in saddle near tail of male, or in cape of either sex; shanks other than yellow. (See general and Wyandotte disqualifications.)

COLOR OF MALE.

Head.—Plumage, white.

Beak.—Yellow, with dark stripe down upper mandible.

Eyes.—Reddish-bay.

Comb, Face, Wattles and Ear-Lobes.—Bright red.

Neck.—Hackle, web of feather, solid, lustrous greenish-black, with a narrow edging of white, uniform in width, extending around point of feather; greater portion of shaft, black; plumage in front of hackle, white.

Wings.—Bows and coverts, white, except fronts, which may be partly black; primaries, black, with white edging on lower edge of lower webs; secondaries, lower portion of lower webs, white, sufficient to secure a white wing-bay, the white extending around end of feathers, and lacing upper portion of upper webs, this color growing wider in the shorter secondaries, sufficient to show white on surface when wing is folded; remainder of each secondary, black.

Back.—Surface color, white; cape, black and white; saddle, white, except feathers covering root and sides of tail which should be white with a narrow V-shaped, black stripe at end of each feather, tapering to a point near its lower extremity.

Tail.—Black; the curling feathers underneath, black laced with white; sickles and coverts, lustrous greenish-black; smaller coverts, lustrous greenish-black edged with white.

Breast.—Surface, white; undercolor, bluish-white, at juncture with body, bluish-slate.

PLATE 107.

COLUMBIAN WYANDOTTE MALE

PLATE 108.

COLUMBIAN WYANDOTTE FEMALE

Body and Fluff.—Body, white, except under wings, where it may be bluish-white; fluff, white.
Legs and Toes.—Thighs, white; shanks and toes, yellow.
Under-Color of All Sections Except Breast.—Bluish-slate.

COLOR OF FEMALE.

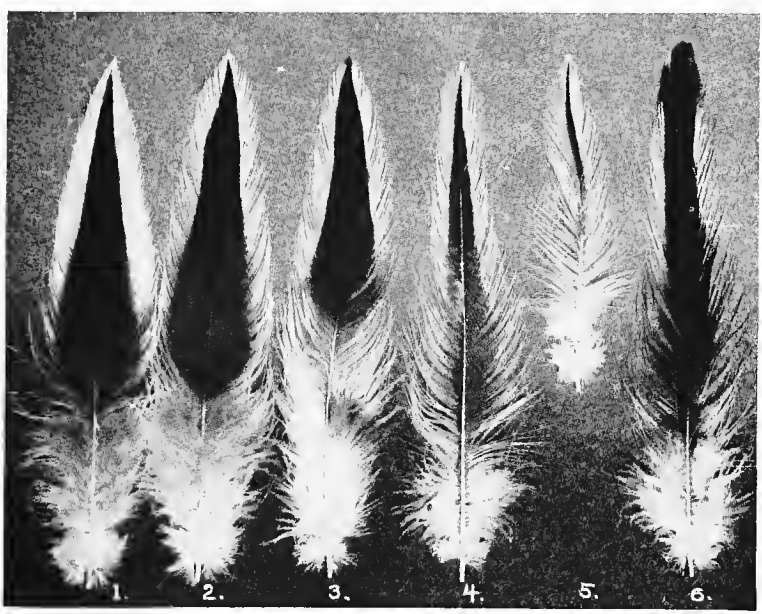
Head.—Plumage, white.
Beak.—Yellow, with dark stripe down upper mandible.
Eyes.—Reddish-bay.
Comb, Face, Wattles and Ear-Lobes.—Bright red.
Neck.—Feathers beginning at juncture of head, web, a broad, solid, lustrous greenish-black, with a narrow lacing of white extending around the outer edge of each feather; shaft, black; feathers in front of neck, white.
Wings.—Bows and coverts, white; primaries, black with white edging on lower edge of lower webs; secondaries, lower portion of lower webs, white, sufficient to secure a white wing-bay, the white extending around the end and lacing upper portion of upper webs, this color growing wider in the shorter secondaries, sufficient to show white on surface when wing is folded; remainder of each secondary, black.
Back.—White; cape, black and white.
Tail.—Black, except the two top feathers, which are laced with white; coverts, black, with a narrow lacing of white.
Breast.—Surface, white; under-color bluish-white, at juncture with body, bluish-slate.
Body and Fluff.—Body, white, except under wings, where it may be bluish-white; fluff, white.
Legs and Toes.—Thighs, white; shanks and toes, yellow.
Under-Color of All Sections Except Breast.—Bluish-slate.

CHAPTER III.

BREEDING PROBLEMS DISCUSSED.

THE COLUMBIAN WYANDOTTE, in general terms, has a white body color, a black tail, black stripes in its neck feathers, and black in the feathers of its wings. These black points, sharply contrasting with the white, make the beauty of the Columbian. Some shape and size were temporarily sacrificed to get them, but today we find birds of

PLATE 109.



COLUMBIAN WYANDOTTE MALE HACKLE.

1—Idealized. 2—Best natural. 3—Average. 4—Too light. 5—Too light. 6—Too dark.

splendid type and good substance, carrying elegant plumage. The breeder, however, should bear in mind the importance of good size and good shaped heads, especially in his breeding females. If they are a little gray in hackle, and show marble or white in wings and some weakness in the color of tail coverts, they should be mated to a male that carries black in those sections in excess of what is called for in the Standard.

PLATE 110.

COLUMBIAN WYANDOTTE MALE HACKLES.

1—A well striped hackle with clean points. 2—A smutty hackle, caused by the black strip running into the point of each feather and forming a black cape. Cocks are very likely to develop this defect, even those which had good necks when they were cockerels.

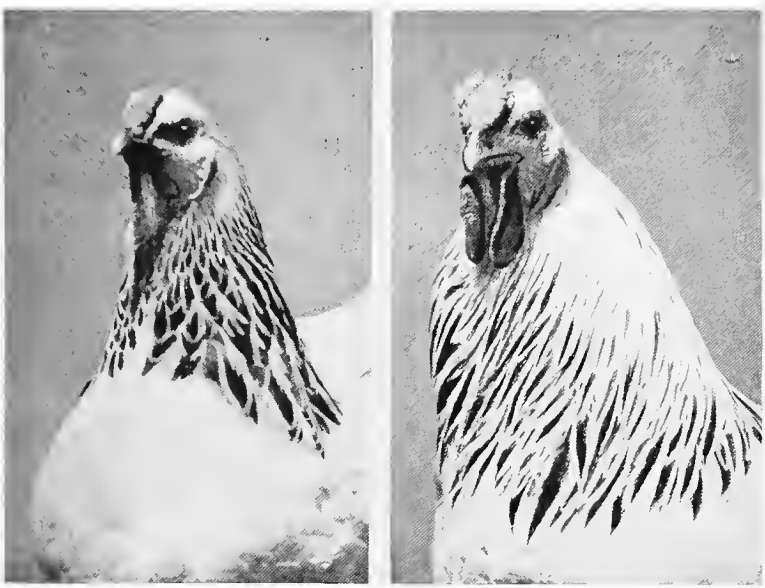
Strength of Color Necessary.—Strength of color is very necessary in breeding Columbians. When the late Mr. Herbert N. Rollins was asked about mating, he replied: "I tell you it takes color to breed the necks, wings and tails we want now-a-days, so give me a male with good solid under-color and some striping in saddle for a breeder and the same for a show bird."

If there is a lack of black in both sexes, the mating should not be expected to produce good color. Weakness of color was a fault of the early Columbians, and the originator, in

writing of the defects of his early stock, set first: "Too light a color in hackle."

The striped hackle is one of the distinguishing features of the variety and this section, when it closely approaches per-

PLATE 111.



COLUMBIAN WYANDOTTE FEMALE AND MALE HACKLE.

The above photos show the excellent lacing obtained on the fronts of hackles, in both sexes, on well bred specimens. This is an important quality for exhibition and breeding.

fection, is one of its principal objects of beauty. Each feather should be black, clearly laced with white. Weakness of color in hackle is due to a weak, black stripe in the individual neck feathers.

A very dark hackle is secured when the black runs out to the very point of the feather, producing a heavy colored, "smutty" end. This results in the appearance around the lower neck of what is termed a "shawl." A neck composed

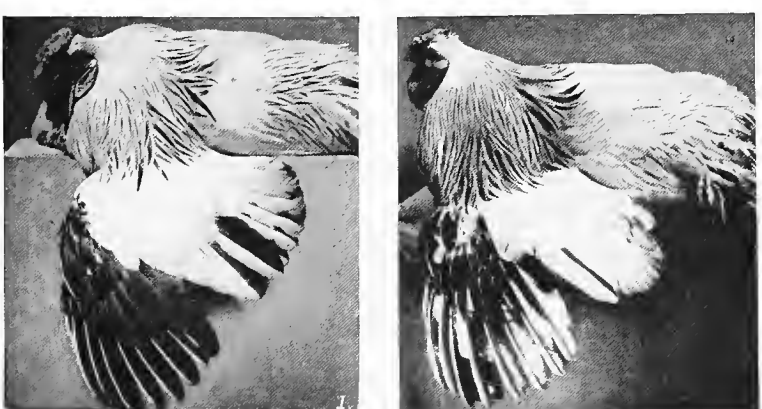
of such feathers is sometimes seen on cocks after they have moulted in the fall. Such a bird may later in the winter grow a second set of neck feathers that are free from the black tip. In this case, the smutty hackle is referred to as a "summer hackle."

The Standard hackle feather, with its margin of white, may show some weakness in its black in the form of white about half-way down the stripe. This is a defect in many males, but may not be noticeable except when the hackle is opened for examination. Breeders desire as sound a stripe as possible. The females picked to produce strong black stripes in males are those with sound stripes and dark under-color in neck plumage.

The black of the Columbian neck should not be a dull black, but a black that is bright because it is full of greenish lustre. A light, weak colored hackle is usually composed of grayish feathers.

A light hackle may be improved in two ways: (a) by breeding a male with a very black hackle; (b) by employing

PLATE 112.



COLUMBIAN WYANDOTTE MALE WINGS, HACKLES AND SADDLES.

1—A male with excellently marked wing primaries and secondaries and well striped hackle and saddle. 2—A poor wing, showing primaries mottled with white. There is also a lack of striping in saddle and the tail coverts poorly colored.

PLATE 113.

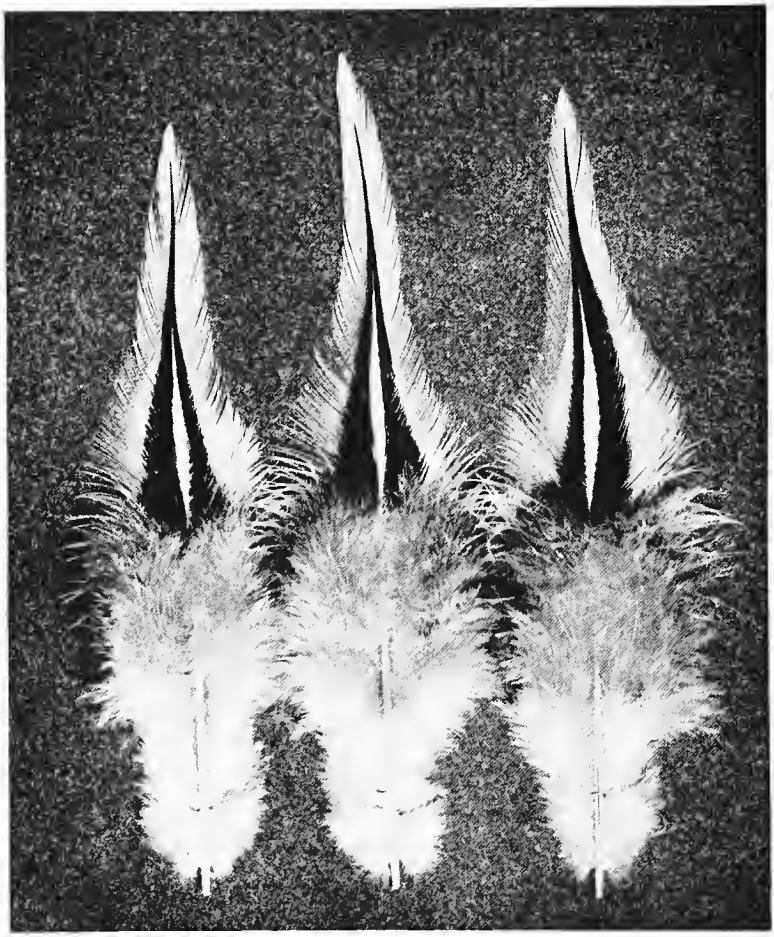
COLUMBIAN WYANDOTTE MALE PRIMARIES.

1—Idealized. 2—Best natural. 3—Average. 4—Poor.

females with hackles that are laced well up toward their heads, even though they possess an excess of black, which shows on the surface of their backs in black ticks and spots.

The desirability of strength of black in the breeding birds was so evident that, in the leading exhibitions of a few years ago, females which showed black in the surface of their black plumage were among the winners. The Standard of 1905 (second edition, published 1906) called for a white back, but the 1910 specified: "Occasional black ticking not a serious defect." It was at this period that the greatest advances in fixing the Columbian's markings were made. Two leading Columbian judges of the day, Mr. Eugene Sites, who handled the classes at New York, and Mr. Thomas Faulkner, who judged at Chicago, favored the excess-colored females because of their strong black points in neck, wings and tail . To their leniency and encouragement was due in no small measure the progress that breeders made in strengthening the black markings in their flocks.

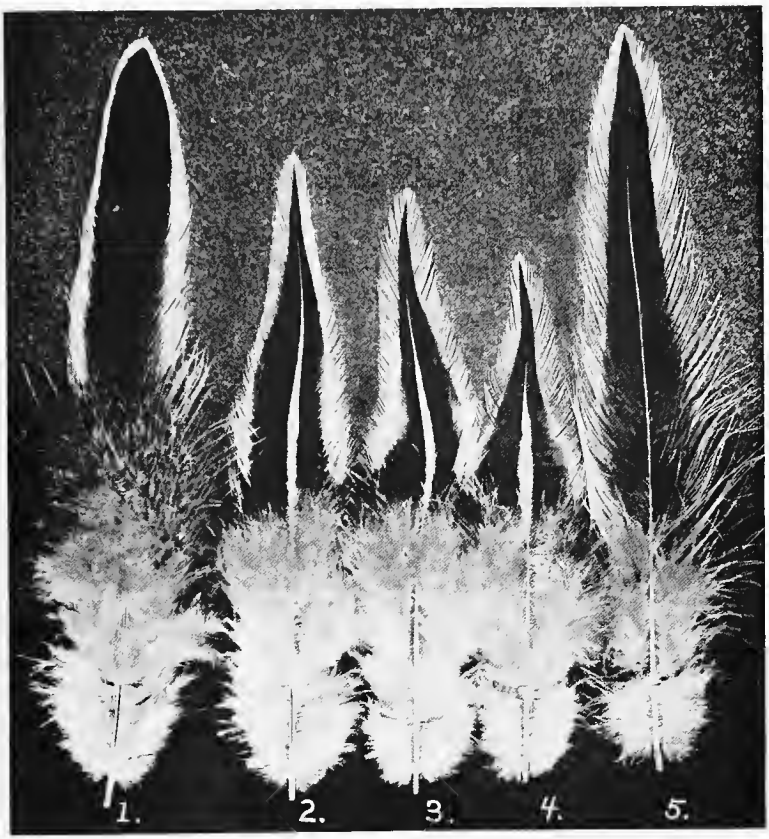
PLATE 114.



EXHIBITION COLUMBIAN WYANDOTTE MALE SADDLE.

The above feathers, illustrating best average, under-color and striping, were taken from an exhibition male. See Plate 115 for the color of feathers in this section of a pullet breeding male.

PLATE 115.

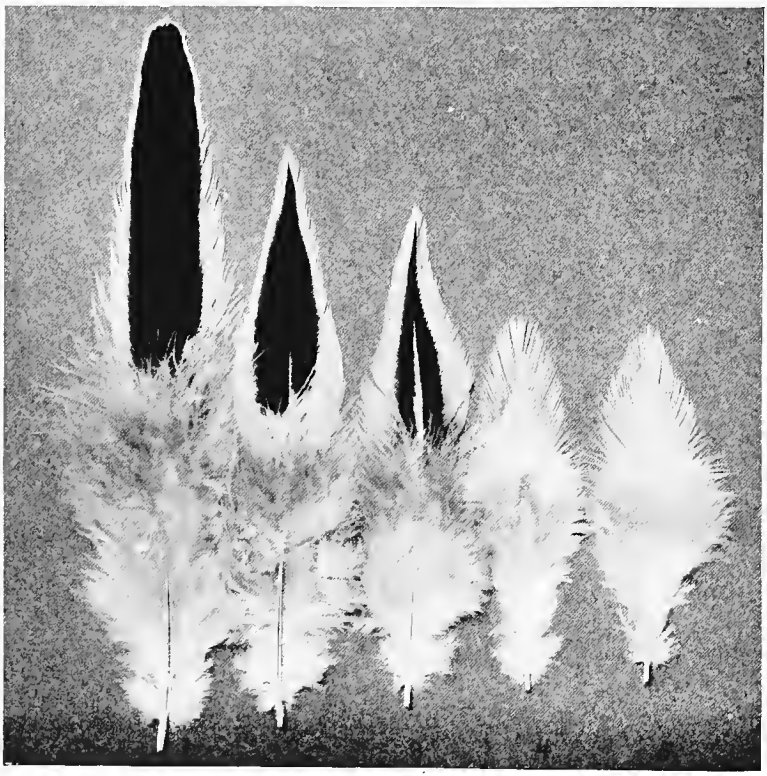


PULLET BREEDING COLUMBIAN WYANDOTTE MALE
SADDLE, BACK AND HACKLE.

1—Saddle. 2, 3, 4—Back. 5—Hackle. The above feathers illustrate the color in these sections of a male which although not useful for exhibition is employed to breed exhibition pullets. See plate 114 for saddle feathers of an exhibition male.

The under-color of the plumage may indicate the amount of color pigment that a Columbian carries. A white under-color in the back is rarely found in combination with the right quantity of black in neck, wings and tail. When the exception exists, the bird can not be depended upon for breeding. As this fact became evident to practical breeders, the Standard

PLATE 116.



COLUMBIAN WYANDOTTE MALE SADDLE AND BACK.

1—Tail covert. 2 and 3—Saddle feathers. 4 and 5—Feathers from back between the shoulders.

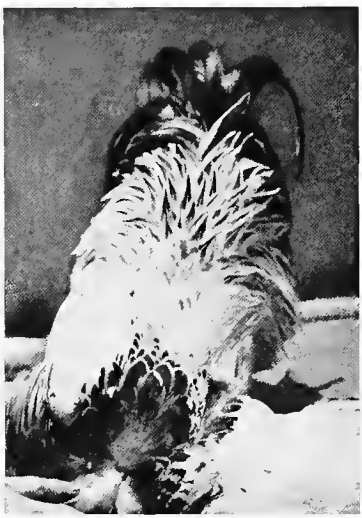
for the female back was changed from "Under-color, white or bluish white" in the 1905 Standard to "Under-color, white, bluish white or slate" in the 1910 Standard; and in 1915, the lighter tones were eliminated from the Standard description of the Columbian female back, and the text now reads: "Under-color, bluish slate." This tone to the underplumage is consistent with the black points required in the important sections.

The female with lighter under-color can be bred from by using a male with an excess of black. A male may be so dark that he will have solid black feathers and black in the upper breast, that is, in the feathers that grow out of the breast muscles. Such a bird is often a valuable producer when mated with females that are lacking in black.

PLATE 117.

A pullet breeding Columbian Wyandotte male showing correct shade of under-color and saddle striping to produce well marked pullets.

PLATE 118.



Columbian Wyandotte male with the broad strip in saddle and back and the laced cape feathers at the base of hackle found on the best pullet breeders.

Weak Wing Color.—Weakness in color of wings is an old fault. While the wing appears white when folded, it is important in a show specimen that when the wing is opened the primaries and secondaries shall display correct black markings. A specimen weak in wing color cannot win where there

PLATE 119.

1 2 3

COLUMBIAN WYANDOTTE SMALLER SICKLES.

1—Smaller sickle defective because of white at the base, otherwise good. 2—Feather defective on account of an admixture of white. 3—Idealized, or perfect, smaller sickle.

The above feathers, each taken from a different specimen, illustrate in 1 and 2 defects often found in this section of the variety and in 3 the color that all breeders strive to obtain.

PLATE 120.

COLUMBIAN WYANDOTTE MAIN SICKLES.

1—A defective sickle. 2—Correctly colored.
The above feathers, taken from different males, show, in 1, a common defect in this variety and, in 2, the practically perfectly colored feather.

are in the competition birds otherwise as good that have good wings. If a dark male is mated to females with white body color that are weak in wing color, it will help to secure good wings on the progeny. Such a sire should have dark slate under-color, nearly to the base of the feathers, the slate in underplumage coming to the surface in the fluff where some black may show in the surface.

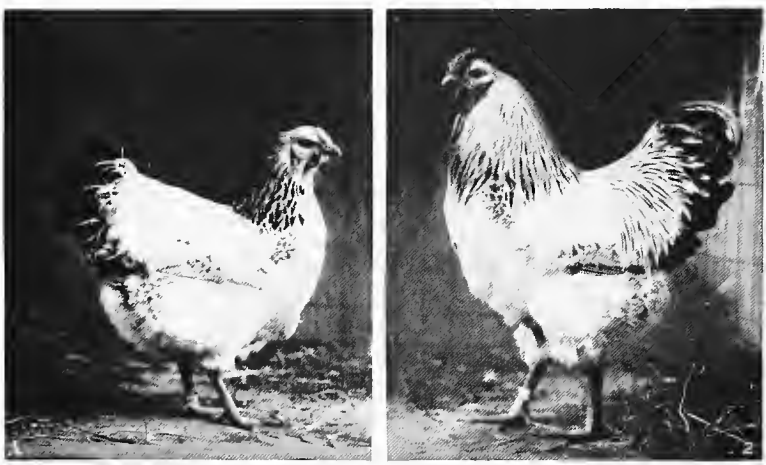
Strong colored females with good wings should be employed to correct defective wing color in males. It is a bit easier to get the solid black primaries in the wings of a male, for pullets often fail in wing color when they moult into hens. A hen with truly sound wings is a valuable acquisition and her chicks may be looked forward to with generous expectations.

At one time it was a fad among certain breeders, and some judges, to give undue attention and attach too much importance to correctly colored wing primaries and secondaries. While it is not advisable to value any section more highly than the Standard specifies, yet these exceptionally well-colored wings, very closely approaching the exact requirements of the

Standard, are particularly valuable, as explained in the following quotation from the Fifth Annual Catalogue of the Columbian Wyandotte Club:

"My experience is that a Standard wing is an almost sure guarantee against fading with age. Last year at our State Club Show in Rochester, I won first, second, fourth on pullets. My first and fourth pullets had good surface color and excellent wings. My second pullet had a most beautiful sur-

PLATE 121.



COLUMBIAN WYANDOTTES SHOWING EXCESS OF COLOR.

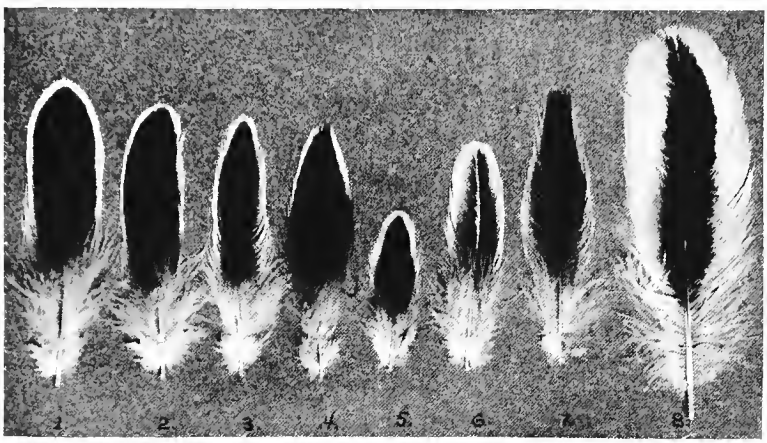
The above photos show female and male on which the black appears out of its proper sections. In both specimens this extra color will be seen in front of wings, in wing-bar and on fluff. These are defects which are not countenanced in exhibition specimens but are occasionally useful in breeding to strengthen the black in hackle, saddle and tail in strains which are weak in that respect.

face color and almost perfect shape, but was little off in wing. However, there was more or less criticism or at least difference of opinion when Judge Andruss did not place her first. Now this year she has gone back. Not so sharp in hackle, rather mottled tail coverts, a faded appearing wing and nowhere near so good a bird as the others. The other two pullets won first and second at Rochester this year as hens with the same sharp coloring that they had as pullets, and the first Rochester pullet of a year ago won first hen, shape, special, silver cup for

the best type female at the Club show in Philadelphia in December. She has been shown seven times and won seven prizes and numerous specials, including best Columbian in show at our last state show in Rochester. Her black wing has held her color in the other sections."

Fading Color.—Fading has also been observed in some males as they have passed from cockerels to cocks and in no

PLATE 122.



COLUMBIAN WYANDOTTE FEMALE HACKLE AND TAIL COVERTS.

1—Ideal hackle feather. 2—Best natural hackle feather. 3—Average hackle feather. 4—Hackle feather that is too pointed. 5—Best natural lacing at throat. 6—Too wide and irregular lacing of white and objectionable white shafting. 7—Hackle feather that is too dark. 8—Tail covert that is defective on account of too small and irregular black center.

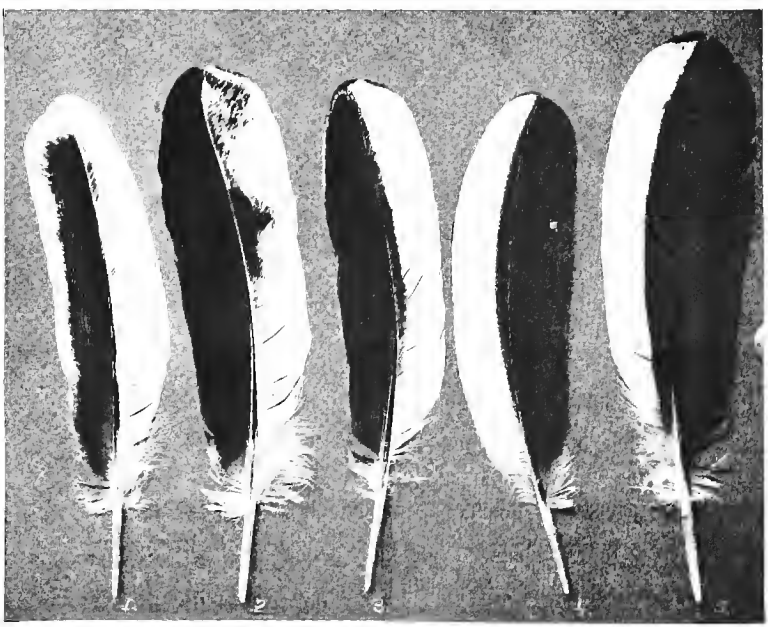
section is the change more noticeable than in tail. The tail should be black—glossy, greenish black—in the male. The tail coverts may be edged with white, indeed such a finish adds greatly to the beauty of the section. However, the sickle feathers of cocks often show some white edging, and the main tail feathers some white at the base. When the males are shown in the winter, their sickles are not always full grown, but the white may begin to show later on.

To overcome these defects in color, the main tail feathers of the female breeders should be as black as possible, including

the two top feathers. To get solid black main tail and sickles in the males and have the color hold, do not trust to a female whose top main tail feathers are edged with white. This means giving the preference to females whose tails are darker than the Standard calls for.

Heavily laced coverts, with weak black centers, are found on the females that are weak in hackle and wing and have a whitish under-color. This section cannot be improved by breeding with such females, white saddled males themselves weak in laced tail coverts. Laced coverts in the male are, from the breeding standpoint, reciprocally related to the same section in the female.

PLATE 123.



COLUMBIAN WYANDOTTE FEMALE SECONDARIES.

1—Poor. 2—Average. 3—Best natural. 4—Idealized. 5—Best natural male secondary shown here for purposes of camparison. The same defects are found in male secondaries that are here illustrated by the female feathers.

PLATE 124.

COLUMBIAN WYANDOTTE FEMALE COLOR.

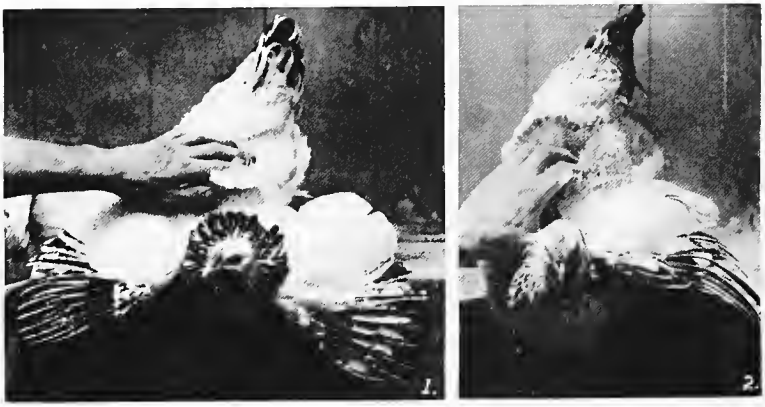
1—Photo showing excellent tail coverts, good wing primaries, good hackle and one secondary feather of wing, showing good marking and strong black color. 2—A well colored female in all sections except back, where black ticking shows on the cushion. This ticking is quite often found on females with well laced tail coverts and well marked wings and is usually of a brownish color, not intense black.

The saddle of the Columbian male should show some striping, the same joining gradually with the similarly marked tail coverts. A pure white saddle offers a great contrast with the tail section, but the tail coverts of such a male are bound to show too much white. Where the saddle carries some striping, the color blends into the tail and finely laced coverts may be secured.

A fault of many Columbian males is the prevalence of brassiness. This fortunately is being rapidly overcome in the best strains and a white free from the objectionable yellow tarnish is now produced. The body plumage of some females shows a creamy or brickish white, but clearness of color can and should be secured in them.

The beginner with this variety should not cull his growing birds until September, lest he eliminate some "diamonds in

PLATE 125.

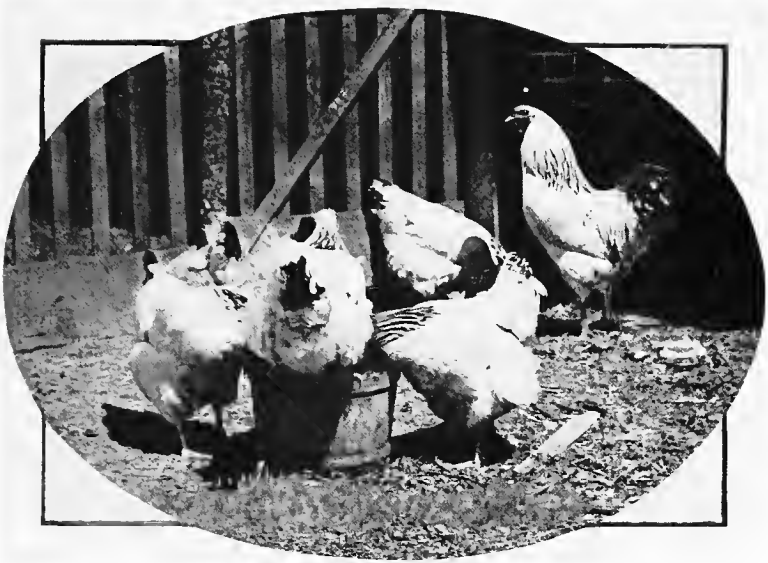


COLUMBIAN WYANDOTTE FEMALE COLOR DEFECTS.

1—This photo shows a female without sufficient black pigment, which causes very defective wing primaries and tail coverts and pure white under-color. 2—This female has too much black pigment, causing black to appear on the surface of back, a black bar and too much slate in the under-color and black on the wings, giving the appearance of a wing-bar.

the rough." Even at this time, pullets may show some black in back and clear up later. To determine whether the surface of the back plumage will eventually be white, pick up the birds and look underneath their feathers and observe closely the new plumage that is growing. A young bird grows about three sets of feathers between the time it is hatched and its first winter, and the new plumage that April hatched pullets begin to grow in September is the plumage that they will carry at the opening of the winter shows. (F. L. P.)

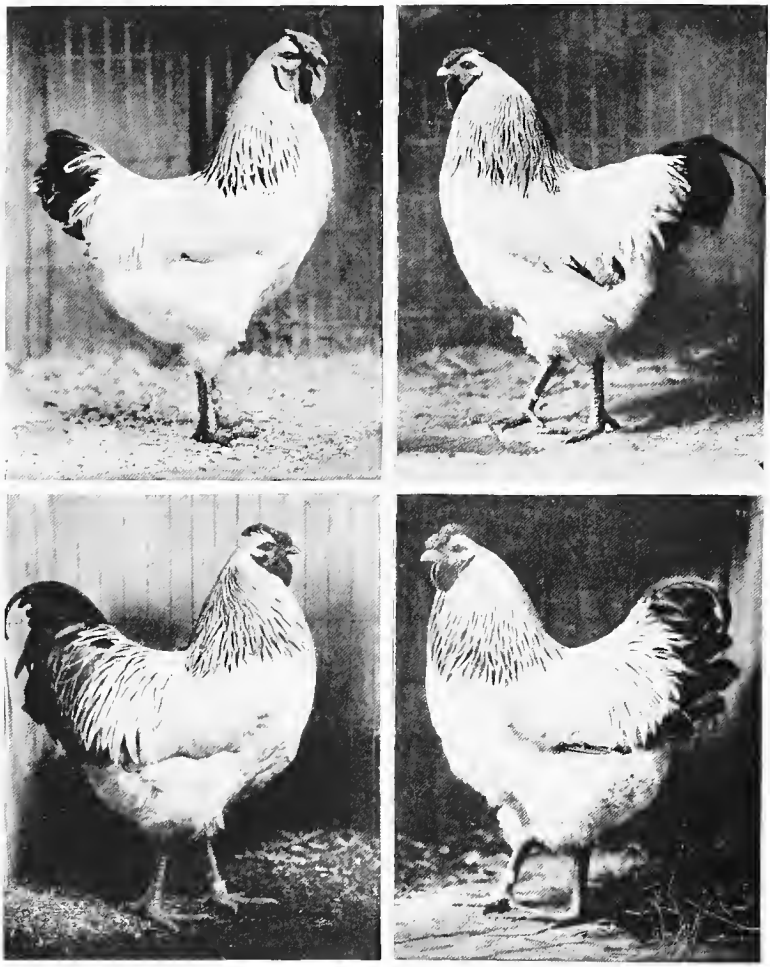
PLATE 126.



"DANDY JIM AND MATES."

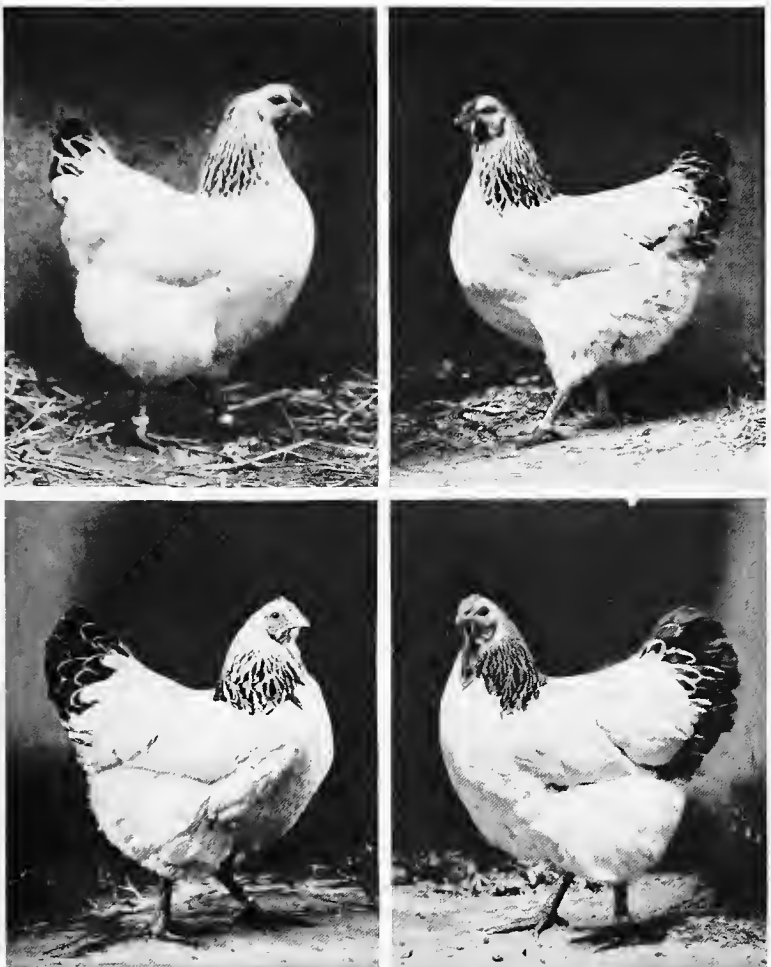
The above pen of Columbian Wyandottes was photographed in 1895 and the photo published in Farm Poultry in 1905. It shows the type and color of Columbian Wyandottes, the best specimens, at that time. These are from a flock that is said to have been the first to breed true to type.

PLATE 127.



Development of Columbian Wyandottes. Upper left, 1st cock Boston, 1907. Upper right, 1st cockerel Madison Square Garden, N. Y., 1910. Lower left, 1st cockerel Chicago, 1912. Lower right, 1st pen cockerel Madison Square Garden, N. Y., 1915.

PLATE 128.



Development of Columbian Wyandottes. Upper left, 1st pullet Jamestown Exposition, 1907. Upper right, 1st hen Boston, 1909. Lower left, 1st hen Buffalo, 1912. Lower right, 1st hen Madison Square Garden, N. Y., 1915.

SECTION VIII.

CHAPTER I.

BLACK WYANDOTTES.

HISTORY OF THE ORIGIN AND DEVELOPMENT.

THE early Silver Wyandotte was made up of different breeds to an extent that out of the variety came both white and black sports. Two breeders residing in Ohio, namely, Messrs. F. M. Clemens and F. J. Marshall, took advantage of black sports that came from the Silvers, and by selective breeding developed the Black Wyandotte.

The Marshall Strain.—In 1885, Mr. Marshall produced from his Silver Wyandottes a pullet that was almost solid black, and a cockerel that was black except for a silver hackle and some light color that showed on the lower edges of the wing primaries. The hackle was the worst feature of the cockerel, for the neck feathers were almost pure white underneath. Both birds had combs that were a little narrow and rather lumpy, yet they were pretty good combs as combs were going at that time on Wyandottes.

As Mr. Marshall had never had any other mating that produced black chicks, he was much interested in the two birds, and he bred from the pair the following spring (1886), saving every egg that the pullet laid, and was successful in raising about twenty chicks. Of the pullets, five were of good black color and, in addition to them, Mr. Marshall kept two of the cockerels which, however, were not as black as he desired, having some white in under-color of the hackle and over the hips. That same year another black pullet was produced by the original Silver mating, which enabled this breeder to breed his Blacks for some three seasons without the introduction of other blood.

At the end of this time, having learned that Mr. Clemens was breeding some black sports that had been produced in the same manner, Mr. Marshall exchanged cockerels with

him, and thus introduced new blood into his stock. Said he: "I then began to advertise them and sell a few eggs, and so the thing moved along. I bred them for some seven years. In my experience I rarely got anything but solid black females, but got a good many males that were off in color. The white in under-color of neck was hard to get rid of. In all, however, I think that they bred true to color, shape and markings much sooner than most new breeds, from the fact that they were true sports and not made by crosses."

The Clemens Line.—It was also in 1885 that Mr. Clemens possessed two black pullets that had sported out of Silver stock, and a cockerel similarly bred that had black body color but a silvery hackle. The Silver Wyandotte had been admitted to the Standard just two years previous, and interest was taken in new varieties of what promised to prove a very popular breed. Accordingly, Mr. Clemens bred from the trio, and, as he stated: "Built up a true breeding strain of Blacks, which are credited with being the foundation of those we now have."

The chicks from Mr. Clemens' first mating "Were almost solid black, only a few showing the hackle markings of the sire. The fixing of the color was not very difficult, the main problem arising from the dearth of fresh blood with which to keep up their stamina. This was overcome by securing, a little later on, several pure black pullets, sports from the yards of Silver Wyandotte breeders, and also in the following manner: About 1890, a friend who owned an exceptionally fine stock of Barred Plymouth Rocks obtained from me a well-marked Black Wyandotte cockerel and mated him to his Barred Rock females. The result of the cross was peculiar. Every cockerel was true Barred Rock in color, while every pullet was a true Black Wyandotte in color, comb and shape, but with superior size and stamina, and with increased ability as an egg producer. I was so impressed with the size and beauty of these pullets that I selected a few of the best and mated them to a pure Black Wyandotte male. The product was, of course, three-fourths Black Wyandotte, and not one showed any Plymouth Rock markings, but the large size and splendid egg-producing qualities continued. I think that to fusion with this blood is partially due the superior size and vigor of the present-day Black Wyandotte." (Quotation from a letter written by Mr. P. M. Clemens to Mr. F. W. Proctor and printed in "The Wyandottes," published by Reliable Poultry Journal Publishing Co.) Mr. Clemens continued to breed Black Wyan-

dottes for a quarter of a century, disposing of his stock in 1910 to Mr. Frank C. Stiles of Ohio.

The thought and care that Mr. Clemens bestowed upon his birds brought them to a condition of good reproducing power, and they could be depended upon to produce solid black plumage with good dark under-color, red ear-lobes, dark shanks, and correct style and shape of comb.

Admitted to the Standard.—The Black Wyandotte was admitted to the Standard of Perfection in 1893 and appeared in the edition of 1894. The variety, unlike other Wyandottes, was permitted to have black shanks. In fact, the disqualifications for Black Wyandottes were: "Shanks other than black, shading into willow or yellow; bottoms of feet other than yellow in color; pure white in any part of the plumage extending over half an inch, or two or more feathers tipped or edged with positive white."

Good color of plumage became an established quality in the Black Wyandottes, Mr. Clemens, as well as contemporaneous breeders who had taken up the variety, doing much to develop the sound, rich, glossy black so much desired in all black varieties. The Standard requirement of black shanks was consistent with the solid black plumage demanded, and the variety made good progress.

Plumage and Shank Color.—Black plumage, free from white, can be bred when yellow shanks are not required. "Good surface and under-color are always accompanied by a dark shank. Too much yellow in shank will mean light under-color nine times out of ten. * * * This was threshed out years ago, and the present dark shank as described in the Standard, with yellow shading allowed, and with yellow bottoms to feet, was the result of practical experience." So wrote Mr. Clemens in "The Wyandottes," edition of 1910. The Standard that he referred to was the 1910 edition.

On this subject, Mr. T. F. McGrew wrote in "The Wyandotte," published by the United States Department of Agriculture:

"Breeders who thought it best to have the same yellow shanks and feet as other Wyandottes did much to injure this variety for several years. It was finally settled that it was impossible to have the yellow shanks and feet with good black surface and under-color. This information, gained by bitter experience, resulted in establishing the original dark color for beak, shanks, and feet.

"It is quite unnatural for black fowls to have other than dark or black legs and feet. When any other color is present, it is an unnatural condition, brought about by artificial methods, which demand undue care in their reproduction to prevent undesirable colors coming into the plumage. Careful consideration of these facts guided the framing of the Standard description for this new variety, which is: 'Black shaded with yellow' as the color for beak, shanks, and feet, at the same time demanding that the bottom of feet shall be yellow, and making the absence of this yellow a disqualification.

"Time has proved the possibility of producing both good shape and color under these Standard requirements. Within the last few years some beautifully colored specimens of excellent Wyandotte qualities have been shown, some of them fully the equal of any of the other varieties. But American prejudice against black fowls has barred the way of the Black Wyandottes to much deserved popularity. The same influence has counted against all other black fowls, many of which have qualities that rival any or all other breeds. Much of this feeling has been removed within the last ten years, and it may be that a better appreciation is in the future for all fowls of this color."

Mr. McGrew's comments, as above, were published in 1901. "Bright red or bay eyes" were called for in the 1905 Standard, but the 1910 Standard read: "Eyes: Black or dark brown," the red eye having been deemed inharmonious with the black plumage. However, during these years, the color requirements for shanks and feet remained practically the same, to-wit: "Black, or black shading into yellow or willow with the bottoms of the feet yellow."

Under this natural Standard, the variety was successfully carried along, and its progress in color and type kept pace with that of the other varieties of the Wyandotte breed, as was illustrated at the Cleveland Show, 1910, when the first prize Black Wyandotte cockerel was awarded the American Poultry Association special for the best bird in the American class, in which competed all Wyandottes belonging to A. P. A. members.

At the Palace Show, New York City, December, 1912, the class of Black Wyandottes consisted of 55 specimens in competition. The next year, a specialty judge was again engaged, and another large class was brought out, on which this writer commented in The Reliable Poultry Journal, as follows:

"The Black Wyandottes attracted a great deal of attention. Mr. Frank C. Sites judged the class. The first hen was a typical, well built specimen, and the first, second and third cockerels a fine trio. With such quality being produced, the Blacks deserve to rank as one of the truest and prettiest members of the Wyandotte family. And, we need not worry about the English excelling. True, the English have the yellow shank, but our breeders are producing true Wyandotte type and soundness of plumage—which is something."

The English were, indeed, breeding a fine yellow shank, a yellow beak and bright bay eye; but their Standard, instead of calling for a black under-color, laid stress on the beetle-green sheen of the surface, and asked for an "under-color as dark as possible." The English system of judging is favorable to a minimum valuation of under-color, for birds in England are judged very much as they stand in their cages, and not taken out and examined closely as in American shows. A bird in the English shows that fails slightly in under-color may still be pronounced "a grand good one," but a breeder schooled in the American fancy will pronounce him "faulty," and this applies to all varieties.

The Black Wyandotte became very popular in England, a real "boom" starting about 1906, and at the Crystal Palace Show, in 1908, 140 Black Wyandottes were exhibited, which was 40 more than the birds of any other variety totaled. Thus it was that at a time when the Black Orpington was being imported from England, the Black Wyandotte was proving its worth and making friends across the seas. While the Wyandotte, as a breed, is deservedly popular in England, the White and Black varieties are frequently accorded first and second places respectively.

Present Standard Requirements.—The popularity of the Black Wyandottes in England and the yellow leg of the English Standard had an influence in America. A change was near at hand, and with the publication of the 1915 Standard of Perfection a new color-type was demanded. The Standard Revision Committee argued that reddish-bay eyes and yellow shanks are breed characteristics of the Wyandotte; therefore, all varieties should conform to these distinguishing features of the breed.

It is true that Black Orpington blood had been introduced in a few American Black Wyandottes, it having been used to produce a deep green lustre, and round, full type in flocks that

needed reinforcement; and as a result, black-shanked Black Wyandottes, with nearly white feet, had been exhibited and detected. Representative Black Wyandotte breeders stated that they were sensible of the need of a slight change from the black eyes and shanks of the Black Orpington, and the Standard Revision Committee evinced a desire to meet the breeders on some common ground. The result was that the Committee wrote into the 1915 Standard a specification for Black Wyandotte shanks as follows:

"Shanks and toes: Yellow or dusky yellow."

The "dusky yellow" clause is possible of a rather liberal interpretation, yet it is in sharp contrast to the black shanks that were common in the variety. Perceiving that more leeway should be given the breeders, a change was made in the description of under-color, and instead of being required to have black under-color like that of other black legged varieties in the 1915 Standard, the Black Wyandottes are required to have **slate** under-color. This is an important concession, since the future of the variety depends upon the workability of the lighter under-color.

Breeders professed that such shanks and red eyes should be established as breed characteristics in all Wyandottes, but they maintained that they should be given five years in which to effect the change.

The future development of the Black Wyandotte depends upon breeders who will come forward and take it up with a determination to suceed. (F. L. P.)

CHAPTER II.

STANDARD REQUIREMENTS FOR COLOR OF BLACK WYANDOTTES.

Disqualifications.

Red in any part of plumage or white in any feather extending more than one-half inch; shanks other than black shading into yellow or dusky yellow; bottoms of feet other than yellow. (See general and Wyandotte disqualifications.)

COLOR OF MALE AND FEMALE.

Beak.—Black, shaded with yellow.
Eyes.—Reddish-bay.
Comb, Face, Wattles and Ear-Lobes.—Bright red.
Shanks and Toes.—Yellow or dusky yellow.
Bottoms of Feet.—Yellow.
Plumage.—Lustrous greenish-black throughout.
Under-Color of All Sections.—Slate.

CHAPTER III.

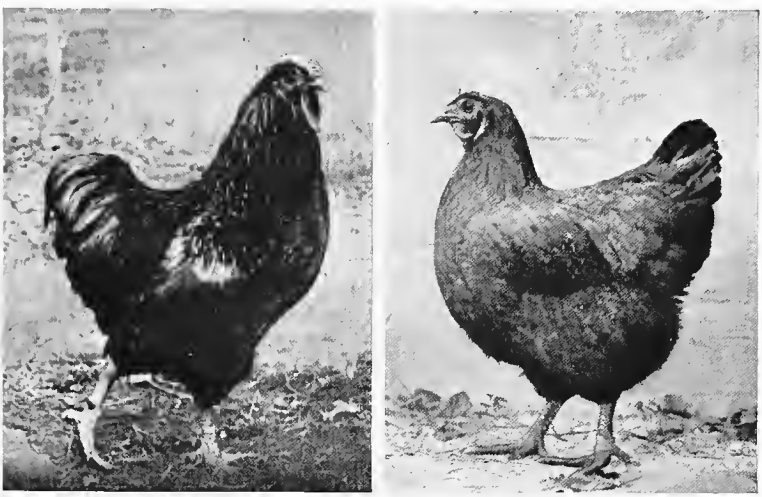
METHODS OF BREEDING.

THE black variety of Wyandottes is particularly suited to poultry keepers who reside in the industrial districts of cities or towns where the coal soot makes a white, buff or light colored fowl appear dirty. There is some prejudice against a black plumage, especially because dark pinfeathers may show in the dressed carcass; however, epicures point to this as an assurance that the slaughtered fowl will be picked clean.

The skin of a dressed Black Wyandotte is rich yellow. Standard size is easily secured, well-grown cockerels and pullets occasionally exceeding the standard weights by 1 to 1½ pounds. The females have made quite a reputation as layers among those who have kept the variety. Mr. Howard Grant

tells of a 3-year-old hen in his yards that laid 29 eggs in 30 consecutive days, and 140 eggs in the year, in addition to hatching two broods of chicks and brooding one of them. The females are not only prolific, but the pullets often lay very early, as was illustrated by a letter under date of June 11, 1904, from the late Mr. T. E. Orr to the present author, which stated: "We have a Black Wyandotte pullet laying before she

PLATE 129.



MODERN BLACK WYANDOTTES.

The above male, photographed when a cock, was a winner of several first prizes at the largest shows in America. The female represents the average pullet of this variety.

is four months old—how is that?" The vigor of the variety, too, leaves little to be desired, a sitting of 13 eggs from Mr. Orr late in the season of the year mentioned producing 13 chicks.

Of course, unusual egg yield or growth is in no small measure due to the efficacy of the poultry keeper's methods; however, the potential quality must exist in the stock. We mention these facts that the reader may know that Black Wyandottes have practical merit, and that the measure of pop-

ularity that they attained was due to their merits for the variety has never been promoted through heavy advertising in American poultry papers.

The future of the variety would seem to depend not upon its making up for some defficiency, but upon the ability of breeders to meet the present Standard's requirements with a success that will give them not only a few select show birds, but a satisfactory surplus of salable stock.

English Methods.—We must refer to the English breeders for advice on mating, for they have devoted much time and study to it. On the mating of Black Wyandottes, Mr. Kingsley Willet, Honorary Secretary of the Black Wyandotte Club of England, has set down the following method as good practice:

"At present it is not wise to attempt to breed exhibition birds of both sexes from one pen: Some success can be obtained by single mating, but the proportion of decent birds will be small, and good cockerels a rarity. Should there be only sufficient space for one pen, then devote your energies either to producing cockerels or pullets.

"Now let us consider the case where the fancier has either birds of his own to mate up or has some birds, and wishes to buy mates for them. Firstly, cockerel-breeding. Select your best cockerel, that is, the one with the best shape and soundest under-color, and mate him with big, low-built hens of rather Orpington type to counteract the narrow, leggy tendencies of cockerels; never mind if these hens have dark legs, provided they are sound in color and are bred from a sound colored cock.

"For the pullet-breeding pen, select the best pullets from an exhibition standpoint, taking care that they are true to type, and picking those having the best leg color. Do not despair if you have no pullets with quite clear legs; good birds have been bred from pullets having dusky legs with a lot of yellow pigment showing underneath, especially if the birds have been bred from good-legged birds. Care must be taken to select pullets with as good a green sheen as possible, avoiding those the shaft of whose feathers is light in color, and also those with purple colorings on back and wings. Another point to avoid in the pullets is white in flights, a disfiguring and hereditary defect. The cock to head this pen must be pullet-bred; that is to say, he must be bred from a good-legged hen. Take the greatest care not to use a waster from a cock-breeding pen; he

resembles a pullet-breeder, but will ruin your strain. Select a cock with the brightest and clearest of yellow legs, plenty of bone and size, and a really good green top color; never mind if he has ticked hackles, or is white in under-color and tail, if bred right you will breed good pullets from him. See that he has a full, well-rounded breast, and avoid a cut-away breast.

"I have only touched on the general principles of mating; for other points, such as good combs, eyes and beaks, birds must be selected as good in these points as possible, but don't mate birds together that have the same defect. Avoid light eyes and white in lobe; these defects spoil the best bird."

Under-Color Versus Surface Color.—After all, it is the old question of under-color vs. surface color. The evidence is invariably and definitely favorable to the possibility of combining pure yellow shanks with black surface color of plumage; it is when the black of the feathers is carried down to the skin that the shanks are dark. Let the breeder, therefore, remember and be encouraged by the fact that Black Wyandottes in America may now have slate under-color. "Slate" is defined by the lexicographer of this text as "synonymous with gray," and gray is a color between white and black. And lastly, the breeder, instead of taking up old prejudices of the fancy, should consider the wild birds, those marvels of nature, whose surface plumage is painted with the brush of a master hand, and whose under-color comes as it will. In natural selection the color of the underplumage has no place, for it can exert no direct influence on the instinct and preference of the species, and therefore Nature is able to concentrate her efforts on the production of a beautiful and harmonious surface color.

The quality of the surface color may vary greatly. The Standard calls for a "lustrous greenish-black," and the sheen and its brilliancy is the principal beauty of a black fowl. It is rarely, however, that the deep green sheen is found without some blue or purple, which takes the form of barring across the feathers. This is a serious although common defect, and is penalized, when the bird is scored, from one-half to two points, in each section where found. Sometimes the tail of the male has a bronze hue. A brownish cast is occasionally found in females, due to an insufficient quantity of green sheen.

Breeding for Color.—The quality of black color is equally as important as the shade of buff or the purity of white, and is even more difficult to determine in the show room because the light is often poor. In a good light, the sheen, or the purple bars, or the bronze, each show distinctly.

The purple has been said to be due to an excess of green color pigment. To overcome the defect, it was for many years a common practice never to mate two lustrous, greenish birds together, but to always mate a lustrous greenish male to a dull black female, or vice versa, that an excess of green sheen might not be produced.

Mr. Charles H. Hubbard, who in recent years has produced as deep a green lustre in his Black Orpingtons as has been seen in America, mated bright, beetle-green birds together. He held that purple was due to improper feather growth, and it is certain a pure colored bird in the hands of a novice may moult in a plumage full of purple bars, and chicks of well-bred stock may be grown full of purple and white as a result of improper care.

Mr. Hubbard writes, in his book, "Poultry Secrets," on mating to produce sheen in Blacks, as follows:

"The purple barring comes more from improper care and feeding than from the mating. * * * I can mate the two high sheens together and be free from any red in hackle. * *

"The method I use in mating Black Orpingtons to get the beautiful green plumage in both cockerels and pullets is to mate a male and female that have the same shade of green, or as nearly as possible to match them. This will produce cockerels and pullets of the beautiful green sheen from a single mating.

"I learned to mate Black Orpingtons by killing a pair of crows; a male and a female. I noticed that the plumage of the two birds was exactly the same shade of green. You could not pick the male from the female in regard to color. This proved to me that nature never intended that a high green sheen male should be mated to a dull black female, but that the plumage of the male and female should be of the same shade. I have never yet found purple barring on crows' feathers. This also proves that the purple barring does not come from mating a high sheen male to a high sheen female. If it did, I would have found barring in the plumage of the crows.

"Then I went to work and experimented on the different methods of caring and feeding and I proved to my own satisfaction that 75 per cent of the purple barring in black plumage is caused by improper care and feeding, which causes a stunt of feather growth."

Where green birds of both sexes cannot be secured, see to it that the surface of the male is green, for the male exerts the most influence on the color of the progeny. (F. L. P.)

PART FOUR.

WYANDOTTES FOR AND IN THE SHOW ROOM

SECTION I.—AN EXPLANATION OF THE JUDGE'S PART IN THE SHOW ROOM.

Chapter I. THE SCALE OF POINTS.

Chapter II. JUDGING AMERICAN BREEDS.

Chapter III. JUDGING WYANDOTTES.

SECTION II.—THE EXHIBITOR'S PART.

Chapter I. THE EXAMINATION OF CANDIDATES FOR SHOW HONORS.

Chapter II. CONDITIONING FOWLS FOR THE SHOW.

Chapter III. SHIPPING TO THE SHOW.

Chapter IV. CARE IN THE SHOW ROOM.

Chapter V. RETURNING FROM THE SHOW.

Chapter VI. CARE OF BIRDS AFTER THE SHOW.

SECTION I.

EXPLANATION OF THE JUDGE'S PART

CHAPTER I.

STANDARD SCALE OF POINTS.

THOROUGHBRED races of horses, cattle, sheep and swine, as well as domesticated breeds of dogs, are measured in value by a fixed scale of points formulated for each breed and, with poultry, applicable to each breed even to every variety.

The American Standard of Perfection describes the ideal specimen in shape and color and this description is the guide for the breeder, exhibitor and judge. It is the supreme law which controls all judges of Standard-bred poultry in making their decisions between contesting specimens in the show room or the breeders' yards.

All breeds of poultry must be bred to the standards formulated by the American Poultry Association and published in the American Standard of Perfection, for without such Standards advancement in the art of breeding poultry would have been impossible.

First Poultry Standard Published in 1865.—The history of standard-making in the poultry world would make a long chapter, for it dates as far back as 1865, when the first "Standard of Excellence" was compiled in England. The late Lewis Wright, one of the most thorough students of the poultry problems, as well as the most successful writer on poultry topics in Great Britain, in his authoritative "Book of Poultry," comments on the first Standard as follows:

"About 1865 a poultry club was formed in England, but it did not secure many adherents and was speedily wrecked by the personal animosity which developed between two or three of its members. But it issued a description of the recognized breeds, with numerical values for the points, under the title of "Standard of Excellence," which was a landmark in the judging of poultry. In spite of many faults, it embodied the prin-

ciple that fowls ought to be bred to definite points and judged by them and that the points could be and ought to be defined. This was a great idea and a great service, though the first clubs existence was brief and its Standard very crude. The scale of points only added up to a total of fifteen, through all the breeds, which quite shut out the modern system of "cutting" a portion off for defects; and in the descriptions themselves there were several errors—such as attributing red eyes to Malays—which, however, could scarcely be avoided at that early period. The existing judges ostentatiously declined to be bound by this Standard, which had, in fact, no authority; yet, nevertheless, its definitions or descriptions undoubtedly had great influence in bringing about greater uniformity of type and more general acceptance of a real type in many breeds."

A. M. Halstead, Rye, N. Y., issued a reprint of this English Standard in 1867, but it did not prove satisfactory to American poultry breeders. A year before the above made its appearance, I. K. Felch, Natick, Mass., devised a Standard and Score Card, with a scale of points, for Light Brahmas, that proved to be the forerunner of an American Standard of Excellence. Mr. Felch claims that his score card was the first to be used in America.

The Lockwood Standard, adopted in New York City in 1871, was the result of the embryonic scale of points on Mr. Felch's first score card, embodying his valuation for shape and color, but the Felch scale was raised to 100 points and, instead of four sections, eleven were allotted to each breed. The bulk of this Lockwood Standard was made up from the English Standard, however. A. M. Halstead, in the fall of 1871, also published an American Standard of Excellence, but neither of these Standards proved satisfactory.

It was not until the American Poultry Association was organized, February 15, 1873, at Buffalo, N. Y., that the work of compiling a Standard of Excellence which would meet with the approval of American breeders of pure bred poultry was begun.

At a meeting of the reorganized American Poultry Association, held at Buffalo, N. Y., January 15, 1874, the first American Standard of Excellence was adopted. This standard consisted of 102 pages. At the third annual meeting of the American Poultry Association, held at Buffalo, N. Y., January 21, 1875, a larger and more complete Standard was adopted, con-

taining descriptions of seventy-nine varieties of fowls, and consisting of 243 pages. Revisions of this Standard of Excellence were made at Chicago, 1876, Buffalo, 1877, and Portland, Maine, 1878. The 1878 edition remained unchanged for many years, as did the Scale of Points. Further revisions of more or less importance were made at Indianapolis, 1888, Buffalo, 1889, and Chicago, 1893, but the most thorough revision of the Standard occurred at Fishers Island, N. Y., in 1897, when many important changes were made, among them being the separation of the shape and color descriptions to the breed it belonged to. "Typical Carriage" was substituted for "Symmetry" in the Scale of Points. This Standard was adopted at the twenty-second annual meeting of the American Poultry Association, held at Boston, Mass., January, 1898. Additions to this Standard were made at Chicago, 1901, Charleston, S. C., and Hagerstown, Md., in 1902. But the above revisions, as well as all subsequent ones, did not affect the Scale of Points.

FIRST SCALE OF POINTS.

The first Scale of Points printed were those in the Halstead Standard of 1867. They were called "Points in Brahmas," "Cochins," "Dorkings" and other breeds in vogue at that time. As no Plymouth Rocks or Wyandottes were recognized by the Standard at that time, we reproduce below the Scale of Points given for "Light Brahmas":

Points in Brahmas.

Size	3
Color	4
Head and Comb	1
Wings, Primaries well tucked under Secondaries	1
Legs and Feathering, ditto	1
Fluff	1
Symmetry	2
Condition	2
	15

For White Leghorns the Halstead Scale of Points ran as follows:

Points in White Leghorns, Single and Rose Combed.

Comb	2
Face and Ear-lobe	3
Purity of Plumage	3
Size	3
Symmetry	2
Condition	2

It is significant to note that breeders of Brahmas fifty years ago placed the paramount value in their Scale of Points on size and color, while the Leghorn fanciers of that time went even further in making color, face and lobes, and size of the greatest valuation in their Scale of Points, symmetry and condition playing minor roles in the scale.

The above early, albeit crude, measures of value given to the various breeds by breeders of a half century ago indicate quite clearly, however, that their idea of valuation of points in the respective breeds was founded on what they deemed the salient features, and it seems to us that the foundation was a good one.

First Scale of Points in the American Class.—In the American Standard of Excellence, as revised by the United Poultry Fanciers of America, convened under the auspices of the American Poultry Association, at their convention held in Buffalo, N. Y., January 15, 1874, the first standard description of Barred Plymouth Rocks is printed, with the following Scale of Points:

Symmetry	20
Size	20
Color of Plumage	25
Head	5
Comb	10
Tail	5
Leg	5
Condition	10
	100

Size played an important role in the early days of the standard-bred fowl industry, judging by the instructions to judges found in the 1874 Standard, as the following extracts will prove:

"In figuring size or weight, the fowls which shall be comparatively small in proportion to a weight that indicates excessive fat shall be estimated in the same ratio as those which present large size and are deficient in weight compared to size."

"Judges must in all cases make a pro rata reduction for any fractional part of a pound that a specimen falls short of the largest or Standard bird."

In the Asiatic class, the specimen largest in size and weight was deemed the perfect specimen and allowed full number of points in size and weight, provided always that the cocks did not weigh less than eleven pounds, cockerels less than ten pounds, hens less than ten pounds, and pullets less than eight pounds, under the 1874 Standard Scale of Points. As an illustration:

"When the largest cock specimen in size and weight weighs thirteen pounds or more, the remaining specimens shall be figured comparatively, losing two points for every pound they fall short of the weight of the per Standard specimen. When the largest cock weighs under thirteen pounds, and not less than twelve pounds, then the remaining specimens shall lose four points for every pound they fall short of the weight of said best or Standard specimen."

The same rule was applied to Asiatic cockerels, hens and pullets, and all judges in other classes were instructed to first establish a corresponding size and weight that shall apply to their class and shall be in keeping with the spirit of the foregoing.

MODERN SCALE OF POINTS FOR WYANDOTTES. ROCKS.

But what Wyandotte breeders are interested in today is the valuation placed on their breed by the American Standard of Perfection. In 1888 the Scale of Points for the varieties of Wyandottes then recognized allotted to the different sections relative valuation as indicated:

Symmetry	8
Weight	6
Condition	6
Head—Shape 3, Color 3	6
Comb	8
Wattles and Ear-Lobes	6
Neck—Shape 4, Color 6	10
Back—Shape 4, Color 4	8
Breast—Shape 5, Color 5	10
Body and Fluff—Shape 5, Color 3	8
Wings—Shape 4, Color 4	8
Tail—Shape 4, Color 4	8
Legs and Toes	8
	100

This scale of points applied to all varieties in the American class. Wyandotte breeders of today will note that the valuations given placed too low a value on color of plumage, only 26 points being designated to this important feature. But the Scale of Points in the 1898 Standard was practically the same, with the exception that "Typical Carriage" supplemented "Symmetry." In the Scale of Points of the 1910 Standard we find some important changes. Twenty-eight points are allotted to color of plumage and the shape of the important body sections gains three points. Weight counts less and failure to approach Standard weight is more severely penalized. By the allotment it will be seen that more credit for merit was accorded to the sections which were in most varieties the most difficult to breed. Wyandottes were now recognized in eight different colors and color patterns, or six varieties, three of which were comparatively new. The color patterns of two of these were admittedly difficult to produce, especially at that stage of development.

1910 Scale of Points.

Symmetry	4
Weight	4
Condition	4
Comb	8
Head—Shape 2, Color 2	4
Beak—Shape 2, Color 2	4

Eyes—Shape 2, Color 2	4
Wattles and Ear-Lobes—Shape 2, Color 3	5
Neck—Shape 3, Color 5	8
Wings—Shape 4, Color 5	9
Back—Shape 6, Color 5	11
Tail—Shape 5, Color 5	10
Breast—Shape 6, Color 5	11
Body and Fluff—Shape 5, Color 3	8
Legs and Toes—Shape 3, Color 3	6
	100

INSTRUCTIONS TO JUDGES.

Under the above heading, on page 35 of the American Standard of Perfection, the following paragraph instructs judges, as well as breeders and exhibitors, how to apply the "Scale of Points":

"Merit: The merit of specimens shall be determined by a careful examination of all sections in the "Scale of Points," beginning with symmetry and continuing through the list, deducting from the full value of each section of a perfect bird for such defects as are found in the specimen. Judges must familiarize themselves with the scale of points of each breed they are to pass upon, to intelligently award prizes. And it must be understood that no more and no less value can be placed on any section than is provided for in the "Scale of Points." And it shall be further understood that this system must be applied whether judged by score card or comparison. The minimum cut for any section shall be one-fourth of one point."

On page 41, under "Cutting for Defects," the Standard reads:

"These cuts should not be confused with nor take precedence over the valuation given each section in the Scale of Points of all varieties."

Owing to the fact that all of the largest shows are judged by comparison today, the above paragraph is of greater importance than the succeeding ones, giving cuts to be made in the various sections. In other words, the "Scale of Points" is the true measure of value which the judge must apply when selecting the winners in the Wyandotte classes in the showroom or in the breeders' yards. In all sections, except weight and condition, the relative value of shape and color are clearly

defined and, if adhered to, will determine the ratings of the competing specimens correctly as a rule. But the size or weight and condition of an exhibition specimen often decide its standing among the winners in the show-room, and great care must be exercised by the judge when handling birds that appear large and look in the pink of condition.

Size is a relative term, so when two specimens are compared the one that apparently looks the larger will often win, other points being equal. But, applying the weight clause is the safest rule in all such decisions.

It is also well to bear in mind that a Wyandotte when over standard weight, though larger in size, may be coarser in type. Size and overweight has a tendency to destroy the type by making the specimen coarser. In defining Standard size, page 39 of the present Standard of Perfection reads:

"In determining size, the judge shall decide by comparing the specimens in competition, with due regard to weight in all breeds and varieties, where weight is required by the Standard. When a bird fails to attain, or in case it exceeds, the size proportionate with the type or shape, it must be discounted quite severely."

Symmetry is valued at four points in the Scale, so a bird approximately closely the Standard ideal can be rated 100 per cent or the full four points of value in the Scale of Points, which will make the ratings of less typical specimens a matter of comparative percentages. But in comparison judging today, as in the past, symmetry is rarely, if ever, computed by a Scale of Points. Where one specimen which is almost identical with another in typical shape or symmetry, has one minor shape defect only, as for instance, a head too narrow, or a comb too large for a Wyandotte, that defect should be discounted under head points, as are all minor or serious faults in the different sections, and the cuts to be made when the score card is applied should comply with the rules given in the Standard of Perfection under "Cutting for Defect."

Condition, like symmetry, is valued at four points, and is equally difficult of application when measured by the "Scale of Point" valuation, as no definite rule to determine the relative value of condition in competing specimens can be laid down, for it is a duty of the judge to determine this matter.

The Standard defines Condition as follows: "The state of a fowl as regards health, cleanliness and order of plumage." Frosted combs, broken feathers and scaly legs are discounted

in their respective sections, and handicap seriously the specimen that may be in good health and feather otherwise; rough and soiled plumage, if caused by poor washing and handling, handicaps an otherwise fine specimen severely, but if the plumage of a well-conditioned bird becomes soiled in the show pen, due allowance must be made by the judge.

The relative values of color and shape in the neck, back, wing and breast sections, given in the 1915 Standard, are more just and equitable than those in the older Standards, as color in parti-colored Wyandottes is of paramount importance, especially in Silver Penciled and Partridge, varieties that have run less true to shape requirements than the Silver and White, due to the extreme difficulties experienced by breeders in perfecting the penciled feather pattern demanded by the Standard. To a certain extent, shape had to be sacrificed in order to obtain the desired Standard color markings. It is, therefore, necessary to place as high a valuation on these color sections as possible in order to protect the male or female specimens which show superior color markings, but that fail somewhat in the shape of different sections. (J. H. D.)

CHAPTER II.

JUDGING AMERICAN BREEDS.

The philosophy of judging Standard breeds of poultry is the same as that which must apply for all other animate or inanimate exhibits found in nature or produced by the art and skill of man, for it is based on the knowledge which governs the valuation of all such matter examined, or specimens exhibited. In other words, the Standard-bred specimen in the yard of the breeder, or in the show pen of the exhibitor, is the matter to be considered by the mind of the judge. And the mind of the poultry judge is governed by the American Standard of Perfection, which is the only safe guide for the breeder, exhibitor and judge in selecting breeding or exhibition specimens. This Standard is the law which every judge must obey.

The fads of breeders and exhibitors must be ignored by the judge, for no conscientious adjudicator of live stock is or ever will be a faddist. Fads of any description are short-lived.

Furthermore, there are the dangers of the advanced types in certain popular breeds or varieties to carefully guard against. They may seem to be in advance of the present Standard for the special variety in some one section of color marking which has been produced by skillful and progressive breeding, and beautiful as such may look to the producer and other admirers of this particular variety, they cannot be justly considered by an American Poultry Association judge until they have been recognized, authorized and printed in the edition of the American Standard of Perfection that is in force at the time of judging.

To recognize any one particular so-called advanced section is to become a slave to a single idea, for the poultry judge with a fad is usually the one who ignores the Standard by placing too much valuation on some particular section in one specimen and overlooking the general all-around excellencies of the competing specimens.

With some judges (as an outstanding example) underbarring is a dangerous fad, one that is shared by breeders not infrequently. A Barred Plymouth Rock, beautiful in surface color, will often be passed because the undercolor is not barred strongly and deeply down to the skin, notwithstanding the fact that deficient underbarring and lighter, less sharply defined barring in the undercolor is discounted from one-half point to one and one-half points only.

Exhibitors or judges who cultivate this special fondness for superior development in any one section of a breed or variety will sooner or later realize their mistake; for it is the exhibitor and judge that stick to the Standard, obey its laws and requirements, who will win out in the short or long run always.

The Standard Is the Judge's Guide.—The American Standard of Perfection describes the shape and color sections in each variety of all recognized breeds of poultry, gives the general and specific disqualifications for which exhibition specimens are to be disqualified by the judges, defines under "Instructions to Judges" the most important laws which govern the selection of prize winners, while under "Cutting for Defects" and "In Applying the Comparison System," rules are laid down for the judge's guidance when examining and adjudicating all specimens in whatever classes they may be assigned to.

The foundation of American poultry culture rests upon the American Standard of Perfection and every poultry judge

should bear this in mind. The Standard is supreme law, first, last and all the time. The breeder, exhibitor or judge who fails to recognize it as such destroys whatever chances he may have to make good.

Judging by the Standard.—The American Standard of Perfection being the law, as well as the guide, for the poultry judge, he must be thoroughly posted on its requirements before attempting to adjudicate in any classes at a poultry exhibition. A thorough study of the rules which govern judging is of the greatest importance, as more protests against awards are based on the failure to observe these rules than on errors of judgment. Never overlook a disqualification of any kind, no matter how trivial it may be, or how much the mind rebels against throwing out a surpassingly fine bird. The judge simply has to do it or invite protest. The Standard may seem wrong to him, but that should make no difference, as all the specimens entered in his classes have, or should have, been selected by the exhibitors according to the same Standard. The judge has no right to disregard any of its rules if he desires to remain in good standing in his profession.

Another important point, however, and one that must never be overlooked is: The Standard permits the judge to give the benefit of any doubt he may have in his mind to the bird. A superior specimen, the best in its class, may have some defect so near to the disqualifying limit that an over-zealous judge will exercise arbitrary powers and disqualify the bird. This is placing a radical or literal construction on the laws laid down by the Standard certainly not intended by its framers. A judge must exercise his common sense in interpreting all such laws. To throw out the gem in any class because a pinhead spot of black or red appears in a white feather is both suicidal to the breed or variety and the judge.

Lastly, a judge should follow Davy Crockett's advice—"Be sure you're right, then go ahead"—when judging poultry at exhibitions. Under any circumstances he must make his decisions without fear or favor and care naught for what exhibitors may say. A judge is an individual having but one opinion. That one he should adhere to. Others may have different ones, but that need not influence him in the least. It is, however, his duty toward exhibitors that may be present and who courteously ask him for explanations of his awards to satisfy them. It is well to remember that many exhibitors are as well posted on the merits of the birds entered

at the shows as the judge himself, and some may know even better the strong points of the best birds. Such exhibitors are not kickers, as a rule, and it benefits a judge to associate with them after the show is over.

First Impressions Are Best.—First impressions of any specimen are usually the most reliable, and other things being equal will govern final decisions of the thoroughly competent judge, one who is thoroughly "up" on the breeds or varieties he is called to adjudicate and no other should ever be engaged.

The real judge is one who—plus training and experience—has a natural instinct for discerning the best, which a noted English authority claims is a quality given to but few men and fewer women, adding: "Well do I remember many years ago one such man, though there have been several others, but I mention him because he seldom acted as judge, although one of the best I ever knew. Put before him a dozen birds or animals of any breed, even though he had never seen the like before, and he would assuredly pick the winners, placing them in correct order. He had the instinctive capacity which enabled him to gauge the type and idealize it."

This bears out the adage: "Judges are born—not made," but which does not imply that training and experience are not required, for without these valuable assets, no man should accept the position of judge of important classes at any exhibition of poultry.

It is the experienced eye of the judge that selects, often at first glance, the bird which stands out among all the rest and this one and the others must be measured by the Standard ideal as it exists in the mind of the judge, provided on closer inspection no serious defects are discovered, which would debar them from winning. We call attention to this because some good breeders, who have attempted to pass judgment on poultry in the show room, have failed to look at the good points of the fowl but have started right off hunting for defects. They wanted all that was bad and overlooked all that was good in the birds.

As an illustration, we will cite the case of an old and noted breeder who did not think the judge placed his Buff Leghorn cockerels correctly, contending that the second and third prize birds were better than his first, just because the latter had a tinge of bluish-gray in the undercolor of the back. Yet this cockerel was far superior in surface color and shape to the other two. All the owner could see was one little hidden

defect in color. He forgot all about the other fine qualities of the winning cockerel. He judged not by first impressions, but with a mania for discovering imperfections.

A poultry judge should be an optimist always, see the good and then discount the bad points of a specimen. He must bear in mind that there are twelve sections for shape and nearly as many for color, besides weight and condition, which must figure in the complete and final examination of every specimen. However, in a well finished and matured specimen, typical shape is readily seen at a glance, in fact a real top-notcher stands out from the rest. Other things being equal, such a bird will win.

Yet it may so happen that an ideal bird in type and size is handicapped by a bad comb, which, with the faddist judge, may result in its being passed by without further examination or patient consideration of its superior merits in both shape and color. And therein lies the chief danger in awarding prizes at a poultry show, for this one glaring defect obscures the vision of the judge who happens to be a confirmed defect hunter, at the same time being oblivious to the existence of the Standard which describes the entire bird, even to placing a limit upon penalties for defects.

General Disqualifications.—The American Standard of Perfection, under "General Disqualifications," describes and enumerates the defects which will disqualify the specimens on which they are discovered by the judge. In most instances the descriptions of such disqualifying defects are defined in clear and unmistakable language, but in several others there is considerable room for doubt, requiring intelligent interpretation and generous application by the judge.

For instance, where it reads: "In varieties where positive white in ear-lobes is a disqualification, judges shall disqualify for unmistakable evidence of an attempt to remove the defect." The words "unmistakable evidence" should be carefully weighed before proceeding to disqualify a specimen, as the burden of proof rests with a judge, should an exhibitor demand an explanation in the event of having a specimen disqualified for removal of white from the lobes. To be on the safe side, the specimen should be given the benefit of all reasonable doubt.

But there is another disqualification clause which is even more delicate of adjustment, as it is more difficult of interpretation, and that is: "Faking in any manner shall disqualify

the specimen." This will bring up the perennial query, "What constitutes faking?"

To define "faking" in terms that will prove satisfactory to all good poultry breeders is a difficult matter; as the dividing line between real faking, such as bleaching or coloring of the plumage, trimming of combs, pulling feathers from shanks of clean-legged breeds, and the methods of preparing birds for the show room, is a very narrow one, especially when it is considered legitimate to pluck many feathers from a parti-colored specimen in order to bring out the color markings more distinctly and effectively, or to fluff up the feathers of a Cochin, pull tails of a Cochin bantam a certain length of time prior to a show, and a few other little aids or "tricks of the trade" in fixing up exhibition specimens. It will keep the judge guessing just where to draw the line in most of the instances stated above.

However, the disqualifying clause that has caused judges more trouble and annoyance than all others in the past reads: "In all breeds required to have unfeathered shanks, any feather, or feathers, stubs or down on shanks, feet or toes; or unmistakable indication of feathers, stubs or down having been plucked from same." The difficult part the judge must play is in determining whether feathers have been plucked from the shanks. The defect-finding judge will do the miscroscopic act in order to discover the hole or incipient stub. The experienced judge will obey the Standard admonition at the foot of the rule for "General Disqualifications," which reads: "Under all disqualifying clauses, the specimen shall have the benefit of the doubt." If the naked eye of the judge cannot detect a stub or "unmistakable evidence of feathers having been plucked," no magnifying lenses or pen knives need be resorted to in order to discover a puny stub located somewhere on the otherwise clean shanks of a specimen. Exhibitors are human and will do all in their power to prepare a bird which will pass muster with the average judge, but they will frown on the adjudicator who calls to his aid magnifying glasses or surgery when examining the legs or toes of fowls.

Size and Condition.—The size and condition of an exhibition specimen often determine its fate in the show room, but great care should be exercised by the judge when handling birds that appear large and look immaculate in their feathered garb. Looks are often delusive, especially in the artificially prepared exhibition specimens such as judges are confronted

with in the white-plumaged varieties, and not infrequently in the parti-colored ones. Cochins which appear immense in size in their very loose feathering which has been curled and fluffed up by the skilled hand of the exhibitor, may fall short of the Standard weight, although they look to have both size and weight.

Size is a relative term, so when two specimens are compared, the one that is apparently the larger will win, other points being equal. But the weight clause is the only safe and correct rule to apply in such close decisions.

It is also well to bear in mind that the specimen over Standard weight, while larger in size, may be coarser in type. As the veteran Light Brahma breeder and judge once remarked to an old judge who awarded a twelve-pound Light Brahma hen a prize over one that fell a trifle under the Standard weight: "When we want meat, we go to market for it where we can buy it for a shilling a pound." Size and overweight do not make Brahmas, and every pound over the Standard weight destroys the type by making the specimen coarser.

What applies to Light Brahmas will apply with equal force to Plymouth Rocks, Wyandottes, Rhode Island Reds and other breeds subject to weight clauses, where it is desirable to maintain the correct typical form of the brood.

The size or weight allotted the various breeds in the American Standard of Perfection is based on the careful judgment of the poultry breeders of the United States and Canada, so that a strict adherence to the weight clauses, when judging standard-bred varieties, is compulsory.

Relative Value of Condition.—Condition is given but four points in the "Scale of Points," for nearly all breeds, the exceptions being Sumatras, Games and Malays, which have ten, six and eight points allotted to them. As the last three mentioned breeds possess special characteristics in plumage, condition is a most important factor when specimens of these fanciers' breeds are exhibited in the show room.

But in the American classes four points is sufficient, as few breeders and exhibitors will send poorly feathered or ill-conditioned specimens to a winter show. However, at a summer or fall show, due allowance must be made for the condition of adult specimens, as few if any are through their natural molt, consequently will not "shape up" like a finished specimen, one that has molted in a completely new garb of feathers. Nevertheless, shape can be approximately gauged

by careful inspection of the body, the breadth and length of the back and breast sections, as a rule, furnishing a good indication of what the bird will develop into when in full plumage. It is well to bear in mind that an adult specimen exhibited at an early show, albeit in full plumage and exhibited in excellent condition, may be greatly inferior in color markings to one heavy in molt.

Typical Shape and Color.—"Shape makes the breed, and color the variety," is an old accepted belief among poultry breeders which obviously makes type or shape all important in a breed, and no judge can afford to sacrifice shape for color alone. American poultry judges in most instances have accepted and followed this belief, but in England the type has not received the consideration at the hands of English judges the Standard demands, a fact which has led progressive poultry editors and breeders to issue warnings in the poultry press, demanding that greater value be placed on type and lesser consideration be given to color.

The American Standard of Perfection in the Scale of Points for the American classes, allows nearly an equal number of points for color and for shape, aside from comb, which places each on an equal footing, consequently both must receive the same consideration when specimens are judged at a poultry show. But great care must be taken in balancing defects, especially in varieties where color markings may be so strikingly beautiful that the judge must accord to such their full value always, no matter what the defects in shape may be. To pass by a magnificently Penciled or Laced Wyandotte, simply because it may have a long back or lean neck, is not consistent with careful and sound judgment.

The Standard demands that such consideration be given to both shape and color, and what applies to Silver Wyandottes, for instance, whether English or American bred, will apply to all other varieties in the American, English, Mediterranean, French or other Standard classes. The Standard rule in applying the comparison system when judging typical shape, reads: "In awarding prizes by comparison, judges must consider carefully each and every section of the specimen and not allow color alone to influence their decisions. The vital importance of typical shape is to be borne constantly in mind, at the same time giving due consideration to color in all sections, including under-color."

And in judging size, the rule to be followed is: "In

determining size, the judge shall decide by comparing the specimens in competition, with due regard to weight in all breeds and varieties where weight is required by the Standard. When a bird fails to attain, or in case it exceeds the size proportionate with type or shape, it must be discounted quite severely."

If poultry judges will obey and carry out these two rules when adjudicating their classes at poultry exhibitions, satisfactory judging will be the rule. For a thorough knowledge of the Standard requirements of all breeds and their varieties and of the rules governing the awarding of prizes to same, poultry judges (especially the younger ones) should make it a point to visit the larger winter shows for the purpose of studying the winning specimens in the different classes; a surpassingly beautiful bird in shape and color will make a lasting impression on the minds of close observers, and a poultry judge should be the closest observer of all. (J. H. D.)

CHAPTER III.

JUDGING WYANDOTTES.

THE Wyandotte has a distinctive type or shape characteristic of the breed, which, regardless of what some White Wyandotte breeders may claim to have done to change the type by producing so-called fashionable types, which may enjoy a temporary reign of popularity, must be observed in all varieties.

Shape Is Paramount.—Form in all thoroughbred races of animals is paramount. It is the shape which gives to one breed its fixed characteristic to distinguish it from another. The thoroughbred horse breeds true to form. The Standard-bred fowl must confrom to the breed type demanded by the American Standard of Perfection, which is the guide for the breeder to follow and the law for the judge to observe.

Typical shape must be given the first consideration when judging a class of Wyandottes, for the beautiful form of the Standard ideal is the characteristic feature of the breed.

The American Standard of Perfection describes Wyandotte form as follows: "In shape the Wyandotte has a type peculiarly its own. It is emphatically a bird of curves. Breeders should strive to maintain the short, broad back and

deep, round body; also the curved, close-fitting comb which adds to the beauty of the specimen." The experienced breeder and judge of Wyandottes will bear in mind always the bird of curves of the Standard, but will make due allowance for the harmonious blending of all the shape sections, in order to value the specimen as a symmetrical whole approximating the accepted Standard ideal in shape, but to the inexperienced poultry breeder and judge the words "short" and "round" will prove misleading and more especially so when Wyandottes have been illustrated purporting to represent the Standard, but in reality representing the faddistic ideals of a few Wyandotte breeders. The destructive shape portraits made the Wyandottes appear as round as balls, the bodies filling out a circle. Such specimens lack the graceful or symmetrical lines which the true Wyandotte possesses. In these exaggerated illustrations, they are represented as being soft and loose-feathered around the thighs, the hock lines covered while the back line approaches the V-shape instead of having the graceful U-shape curves. The Wyandotte is not a soft or loose-feathered fowl, but a bird of cobby build, with fairly close fitting plumage. Loose or Cochiny feathering destroys the symmetrical outlines of the ideal Standard Wyandotte.

Form of the Male.—The White Wyandotte being the most popular and widely bred variety of the Wyandotte family, and one that has had the most changes in shape ideals since its origin, due to the efforts of the individual breeders, who were always striving after the higher ideals, albeit such were often radical departures from the Standard ideal, we will use as ilustrations to more clearly define the typical form of the Wyandotte by interpreting the Standard descriptions of the shape sections, the pictures on pages 196 and 197.

The White Wyandotte male, pictured herein, embodies the composite shape ideals of leading breeders and judges. The subject in this illustration conforms intelligently and closely to the Standard word description of the type of a mature Wyandotte male, and possesses the cobby form and smooth feathering as well as the curvilinear lines of the "bird of curves" of the American Standard of Perfection.

The outlines also embody grace and denote activity, while the general appearance indicates strength and masculinity. A specimen approximating the form of this ideal and possessing superior color or color markings should prove a winner in any company. A careful study of the different sections will reveal their individual perfection and beauty of form, the blending

of all sections producing a harmonious blending in the finished specimen. This Wyandotte male stands firmly on strong legs and feet, the legs being well spread, showing the deep, broad and full breast, well spread tail, coach horse neck and the comparatively short, broad and finely rounded or cushioned back, found only on the highest type of Wyandotte males.

Standard Head Points.—The head of the Wyandotte is a unique feature of the breed ,and no other breed possesses a rose comb of the shape, symmetry and fineness of texture of the Wyandotte. It is one of the most valuable assets of the breed from an exhibition standpoint. No matter how true the form of the body or sound and beautiful the plumage may be, a large, beefy, coarsely pebbled comb destroys the appearance of the specimen possessing such, as well as its chances of winning the coveted blue ribbon in the showroom.

The comb is described in the Standard as follows: "Rose, low, firm on head; top oval, free from hollow center, and surface covered with small, rounded points, tapering to a well defined point (spike) at rear, the entire comb curving to conform to the shape of skull."

The comb of the male illustrated conforms to the above Standard description. Combs, however, may appear good in shape and size, but fail in texture or surface finish. One of the most typical and symmetrical combs we ever saw on a living specimen is that which topped the head of a White Wyandottee cock, winner of first prize at the Madison Square Garden, 1911, and second at Chicago in 1912. The head of a Wyandotte male should be broad and well rounded, the brows slightly overhanging, but not as prominent in this respect as in the Brahma fowl.

Wattles and ear-lobes should be fine in texture and medium in length, i. e., wattles should be long enough to give the cock or cockerel the characteristic masculine appearance, but excessively long, creased and coarse wattles should be discounted by the judges.

In comparison judging, where we use what we call "quality ratings," i. e., making XXXXX perfect, with XXXX, XXX, XX and X representing excellent, very good, good and fair, we would rate coarse lobes in cock XX and X in cockerels.

A comb like the one illustrated in Figure II, should be XXXX, the highest mark used as a rule, in adjudicating living specimens. A perfect comb should be rated XXXXX, but perfection is never attained except in very rare instances. We have handled many thousands of birds in the past forty

years, but never found a comb which could be rated XXXXX, or which could not be cut at least from one-half to one point by the score card under the present American Standard of Perfection. A fine head and comb will make a decidedly good first impression on the judge, and other points equal, the birds possessing such will win the coveted blue ribbon.

Form of Neck, Back and Tail.—After the head points of the Wyandotte male have been examined, both from front and sides, the neck section follows, and it is one of the greatest importance in the Wyandotte male. Many years ago a veteran fancier and very keen judge described the neck of an ideal Wyandotte cock: "He has the neck like that of a French coach horse." This broad, but apt, comparison of similar ideals impresses on the minds of the breeder and judge a neck with a full, well-furnished set of feathers, giving it a broad, thick and comparatively short appearance. A long, thin neck is foreign to the breed, being accompanied by a straight and narrow back and pinched tail, in most instances. Such specimens should be rated XX to X in typical form, even if good in head points and other sections.

The neck illustration in the picture previously referred to is ideal, the feathers flowing well over the shoulders, or cape, and forming a graceful juncture with the back.

The back is of no lesser importance than the neck, although some breeders have favored the shorter back, which, when viewed from the side, discloses the objectionable V-shape instead of the broadened U-shape true standard form demands. The concave sweep should be kept "stretched out" instead of shortened and deepened. An X rating is sufficient for these V-shaped back specimens.

The tail of a Wyandotte male is an important section, but not so important as to overbalance all other sections. Breeding for and striving to attain unusual size and spread of tail destroys the harmony of the other sections, so it is necessary to discount excessive tail development, and judge the shape, size and carriage of the tail by its harmonious relationship to the other parts or sections of the specimen. The tail of a Wyandotte male is short and well spread, which must be carried at an angle of about fifty degrees, the sickle feathers being medium length and curving closely and gracefully over the main tail, forming an unbroken, curved line. The back of a well proportioned and fully-furnished tail is typically illustrated in Plate 11.

Form of Breast, Body, Thighs and Wings.—The breast of the Wyandotte male must be broad, deep and well rounded, as will be seen in Plate 11, which conforms to the Standard ideal in shape. The 1915 Standard describes the body as "moderately short." The body line must not drop below the hock lines, as was often the case with loose-feathered adult Wyandottes which enjoyed temporary popular favor several years ago. The fluff is well delineated in Plate 11, as are the legs and toes.

The thighs of the Wyandotts male must be short and thick, indicating an abundance of meat. Long and thin thighs are very serious defects which should be severely discounted when examining and judging exhibition specimens. It is well to feel of the thighs with the hand, as outward appearances are often deceptive, especially when the thighs are loose or soft-feathered.

The wings should be set evenly at the shoulders, showing smooth, rounded fronts, convex, close-feathered wing-bows and bars, the primaries and secondaries well tucked in and held up, swinging freely from the body. This section in first-class specimens is rarely, if ever, defective in shape, except perhaps in broken or twisted feathers, which should be discounted, the former lightly, the latter severely.

Standard Form of Female.—The graceful lines of the male Wyandotte, in a more modest degree, are the striking characteristic feature of the ideal Standard Wyandotte female. The true form or figure of the Wyandotte hen or pullet must stand the symmetry personified, in fact she must have as near perfect blending of all her sections which make up the whole form as possible. As in the male, there must be no angles, V-shaped backs, loose-feathered, short and round bodies, hidden hocks or inharmonious parts. Each part must belong to the particular hen or pullet and be, in proportion and character, one which would naturally belong to a bird of that conformation.

In some respects the true form of the Wyandotte female is that of a smaller and more refined type of a high-class, Standard, Dark Brahma female, one of the progenitors of the Wyandotte breed. The heavier skull and beetle brow of the Brahma has been replaced by the broad and well-rounded head with slightly overhanging brows in the Wyandotte. The back, albeit shorter, has the same slightly convex cushion and breadth; the breast and body lines are proportionately the

same. To shorten up the Wyandotte into a ball is departing from the original form or breed-type.

The Wyandotte female must be as graceful in her body lines as the male is in his, the only difference in the make-up being in size and the obvious sexual conformation of neck, back and tail. The defects in form of the male are the same for the female, but less accentuated in the latter than in the former. The form of the 1915 Standard Wyandotte female illustrates the ideal for shape accepted by breeders of today.

Form of Head, Comb and Neck.—The comb of the female is the smaller counterpart of that of the male, but it must be finer in texture; the same holds good with the lobes and wattles.

In judging Wyandotte females, examine the head points first, for a characteristic Wyandotte head with neat and well-fitting comb, and a short beak with a stout upper mandible, slightly curved, will usually be found on a good body. Few female heads will rate XXXX in quality, so when a real superior one is found in the showroom or breeder's yard, it is safest to mark it XXX and rate the others XX or X.

The neck of the female is of equal importance in determining the correct form or breed type of the Wyandotte. But finely formed, full-leathered and gracefully curved necks are not very common. Few can be voted XXXX, a few more XXX, but the majority of necks will not average XX or X if the Standard form is strictly observed.

Form of Back, Tail and Wings.—The American Standard of Perfection, 1915, describes the back of the Wyandotte female as: "Short, broad, flat at shoulders, rising in a concave sweep to a broad, slightly-rounded cushion, which extends on to main tail; plumage, abundant."

The back of the Wyandotte female in reality is not short, it only appears to be so, due to the profuse feathering of the neck and the excessively large cushion in some specimens.

The ideal Standard Wyandotte must have an unbroken, graceful, curved line from the crown of the head arching over the neck, and meeting the concaved line which continues on to the cushion, making no angle at the juncture of the neck and the back, and only a slight indenture at the end of the cushion line where the latter meets the tail. (See Plate 61.)

Specimens showing V-shaped backs and Cochiny cushions should be rated no higher than X. A Wyandotte female which can be rated XX is an exceptionally good one, and one which reaches XXX is a star in this section.

The tail should be short and well spread. Judges will have little or no cause to discount this section in exhibition specimens, as a rule, for the skill and art of the breeder and exhibitor will look after that.

Female Wyandotte tails must be rated not less than XXX or even XXXX at our leading shows. Pinched and long tails must be rated X whenever found.

Wings are seldom faulty in outward conformation, the most common faults and serious defects being broken or twisted primary or secondary feathers, which must be discounted the same as for these found in males.

Form of Breast, Body and Thighs.—The most important as well as prominent section is that of the breast. It must be broad, well-rounded and deep. The fish-breasted Wyandotte female is an abomination, as it gives undue prominence to the protruding breast bone. Such breasts must be severely punished by the judge, even where there is little or no competition. Unless such birds are superlatively good in all other sections—which is rarely the case—they should be passed by the judge and marked unworthy of a prize. Neither should the breast be inflated or puffed up, but should be smooth-feathered and well rounded to form a symmetrical, curved line with the body. The latter, while deep, should not drop its keel line below the hocks or carry a useless amount of drooping fluff. The heavy Cochiny-bodied birds, often found among good, but over-fat, adult Wyandotte hens, should not be rated higher than X in this section. The thighs should feel meaty and full when in hand, and exhibit clearly defined curvilinear hock lines. Long thighs and loose-feathered one are defects which deserve no higher rating than an X at the most.

Shanks should be short, but not so short as to make creepers of Wyandottes. They should be stout and strong, but not so heavy in bone so as to destroy the graceful symmetry of the other sections. Toes must be straight. As a rule, few cuts are made for shape in shanks and toes, so that these sections can usually be rated XXX. (J. H. D.)

SECTION II.

THE EXHIBITOR'S PART.

CHAPTER I.

EXAMINATION OF CANDIDATES FOR SHOW HONORS.

CHAPTERS upon this topic are generally written under the title of "Selecting for the Show Room," but selection is always accomplished by examination; in reality it is the result of several examinations from different angles, the candidate for show honors passing successfully through at least four successive examinations before it is finally crated and shipped to the show room, where it is to undergo final examination at the hands of the official arbiter, whose decision, should it be final as it usually is, will determine whether this particular specimen was worth while, or whether it was a "misfit" in that particular select company, and whether your energy was well directed or misspent. Chances of misdirected effort or of selecting to little purpose increase with competition, but so do also the benefits you derive from winning in such competition and in such proportion as the competition is keen. Your interests demand that misdirected effort in all directions be so far as possible eliminated. That basic law of success is just as applicable when selecting for the show room as at any other time and in any other place. To select wisely and well, your best candidate means much to you and something to the poultry-loving public. To you it means the saving of labor, expense and perhaps chagrin. To the public, the elimination of poor and mediocre specimens means a better impression and increased interest, attitudes worth cultivating.

The Processes of Selection.—The process of selection of show birds as it is practiced by the experienced exhibitor, if analyzed, consists of four steps: the candidates are quite loosely selected, then examined closely, and carefully and critically compared one with another, after which the selection by casual observation is confirmed or rejected.

The First Step.—Selection is dependent upon examination, casual at first and superficial, necessarily, as it is the superficial attractiveness of a bird that must first catch the eye. An exceptionally good comb, stylish carriage, symmetrical form, strikingly handsome markings, or brilliant colors, are superficial qualities that please and win the specimen possessing them almost instantly a first consideration.

"Catchy Quality."—This "catchy quality" should figure largely in the selection of show specimens when not accompanied by too serious faults as it means beauty, and beauty coupled with utility is the keynote of the Standard.

To explain the phrase "catchy qualities" would be difficult, though to define it would be easy. It simply means beauty or attractiveness. To state exactly of what it consists is practically impossible. However, it is a quality recognized by both the professional and the amateur and must always be reckoned with. Many birds with the catchy quality lack in certain qualities and they become what is known as "fillers."

"Fillers."—Fillers are used, however, in the keenest competition and one expects to take chances with a few of good quality if they have characteristics to which the judge is known to be partial. Fillers are, in general, birds of three classes, first: birds of no more than average merit but one phenomenally good section, or quality, which, if it is located in some prominent section, makes the specimen very attractive; second: often, however, a specimen having such phenomenal qualities in one or perhaps more sections is correspondingly poor in possibly an equal number, yet it is possible that the judge and even popular opinion will be overawed by the excellence of the section of phenomenal merit, while the faulty sections will be overlooked; third: the class of birds that are known as good all around specimens, though they have no serious defects, they are very fair in all particulars and meet technical requirements very well, but they lack attractiveness. While the analysis is satisfactory, the catchy qualities are decidedly lacking. Without these, it is seldom that a bird is returned a winner in close competition.

The Second Step.—Close Examination.—A winning specimen needs more than the power to attract admiration. It needs also the power to retain it after examination, which with one who has accepted certain standards of beauty means that the specimen must meet the requirements of such a standard as the person who conducts such an examination has

adopted. The first step, the selection of candidates by casual observation, usually at a distance, is followed by an examination which should involve the closest and most critical scrutiny, section by section, as to their conformity with the requirements of the Standard of Perfection.

Mental processes, even with the best trained minds, are too restricted to attempt to accomplish this as a whole or in one operation. The specimen must be examined carefully, section by section, for both color and shape, beginning with symmetry and ending with legs and toes, forgetting none. Both the merits and defects of each must be accurately weighed, the defects because they count against the specimen, the merits because upon these depend its position in the awards. The examiner must expect to find both merits and defects. These are two qualities that all birds possess. None are perfect, and no well-bred specimen is entirely devoid of merit. Unusual merit in one or more sections will offset defects in others. Good color will offset good shape, and vice versa. In some varieties good undercolor offsets to a certain extent defective surface color, while in other varieties undercolor may be so universally good that but little attention is paid to it in estimating comparative merits of two or more exhibition specimens. In still other instances, undercolor is almost wholly a breeder's point, not considered very seriously in the estimation of show merit. The actual consideration of the different phases of each section of each variety obviously cannot be treated in this chapter, as such consideration forms a large part of the entire treatise.

But it is in place, however, to call particular attention to the chapters on common defects of plumage and the accompanying illustrations, which should be studied minutely after a good mental digest of the standard requirements of the particular variety in question. Many other chapters in this work would assist the exhibitor in selecting the strongest candidate for show honors, as there is much correlation between breeding and exhibiting, and the understanding of the origin and development of a breed or variety increases the capacity of an individual to comprehend the trend of public opinion, which as well as the Standard has its influence on the judge's conception of what an ideal fowl of any variety should be, as it has had, heretofore, its influence upon the Standard's printed description of the same thing.

Prime Requisites Overlooked.—There are, moreover, some qualities which must be considered that are usually overlooked as Standard qualities, though they should not be. Health, vigor and a generally attractive appearance are surely most essential considerations in final selection by exhibitors of long experience. It is clearly the intenton of the Standard to make these requirements of prime importance. Health is demanded under the section of "condition," with but an allowance of four points, it is true, but even at that it is next to impossible for a bird to win unless it is in perfect health, or we might better say, in good condition, which means more, including both good health and good feather. It is not necessary that a specimen should lose the total allotment of four points to have a cut on condition fatal to his chance of winning. Often a loss of one point or even of one-half a point in this section is fatal. It is generally essential that the bird be perfectly conditioned, if it is to be a possible winner, and such a condition is acquired only by perfect health, which is confirmed, perhaps, by the fact that it has already been selected as a candidate, which should be reaffirmed by closest examination. To win in close competition without this quality would be difficult, but alone it is not enough to win in good competition, though it is sufficient many times to win the admiration of both the novice and the expert; that of the latter for only a limited period, however, and that period comparative to the degree of his proficiency.

Comparison of Candidates.—During this process many things must be taken into consideration besides comparing one section with another for shape, for color, or for both. These are: The condition of the bird, the health, development in regard to shape, in regard to plumage, weight, time of show, or length of time available for process of conditioning.

When the time for the final consideration of the different candidates with these requisites in mind draws near, much depends on whether the show is to be judged by score cards or comparison. For one thing, when the score card system is to be used, weight becomes of much importance. A bird that is a pound underweight loses according to standard rules two points, and the ones which are so handicapped must excel one-half of one point in four sections to get on even terms with one not thus handicapped. This statement gives the reader an idea of the handicap of underweight, yet it is not unu ual to see specimens on exhibition more than a pound underweight,

and then the handicap becomes even more serious. Very often birds of naturally very superior plumage are justly defeated by fully matured, up-to-weight specimens. As a rule, well-balanced birds, or birds of good even qualities do well in score card exhibitions. High scoring birds are often those whose fundamental qualities are perfect. If a specimen be fully up to weight, in good plumage, in perfect health, and perfect in beak, eyes, and legs, and has a nearly perfect comb, it is a hard bird to score low, even if it has only fair plumage. The foregoing attributes are what we term the fundamental qualities, and the previous statement is particularly true, if, in addition, the specimen has good shape.

When the Comparision System is Used.—At exhibitions governed by the comparison system, first impressions undoubtedly carry more weight than under the score card system, which compels minute inspection, not merely invites it. First impressions are, therefore, important and such birds as described near the beginning of this chapter are the ones which catch the eye at first glance and are good selections as a rule. Not only do first impressions count more but if a specimen under the comparison system fails to "score" with the first impression, that specimen is, then and there, down and out. It must possess some strongly attractive feature, and it must be one that impresses the judge quickly. What that feature must be varies widely and depends somewhat upon the likes and perhaps the dislikes of this or that particular judge. It might be shape or it might be color. It should be without question even all-around quality. Thus it will be seen that a study of judges as well as a study of standard requirements is very often important in the solution of the big problem, "HOW to WIN prizes." Again, the excellence of the markings of one or more sections, possibly the condition or behavior of the specimen in the show coop, the ability to pose, very likely will have considerable weight with the judge that is just a little emphatic about shape requirements.

It would be well at this stage for the novice to take from the Standard a mental or written list of all possible defects for each section for color and markings. Defects of shape are not so complicated and are, therefore, more quickly seen. For example, if a specimen of the Buff variety was to be examined, a list something like this would assist the novice: Correct shade of color, form, surface color, edging, mealiness, shaftiness, sections too dark, sections too light, undercolor too light, uniform color, black or white in tail, in wing, etc. (A. C. S.)

CHAPTER II.

CONDITIONING FOWLS FOR EXHIBITION.

SUCCESSFUL showing consists of two things, having the quality and showing it properly. The gardener who raises roses for the market strives to place them on the market when they bring the greatest price. The man who raises broilers for a living times his product for the highest market. It is the exhibitor's business to time his birds for the exhibition just as the gardener and market poultryman time their products to be at their best at the most advantageous season.

Regulating Development.—The second principle involves the science or art (may we say knack?) of properly rearing a bird and timing it for the exhibition.

The phrase "Every dog has his day," will never be applied to anything more forcefully than to exhibition poultry; the bird that was a "Never Beaten" last week is a "Has Been" this, and we see it exemplified time and time again. There comes a time in the life of every young bird when, seemingly, a transformation from the awkward, angular lines and short, scant, rough garb of the chicken to the full, round contour and abundant, sleek, profusely flowing feathered dress of maturity takes place, which, on account of its brevity, appears almost magical. It is well then, to estimate the time, even the moment, which you can from years of experience with your own strain of birds, when your birds will be fully matured in form and fully fledged, as the growing proclivities of two strains are seldom the same. Note mentally the progress and development of your birds each year. If your memory is incapable of carrying the relative progress of your birds with reference to age and development, keep accurate notes. They will be both interesting and instructive if kept in connection with a feather album, which is always a valuable asset to any breeders' library.

Condition, All-Important.—A good exhibition specimen must have first a certain degree of excellence in size, shape and plumage. Excellent quality in all of these particulars except size passes unnoticed in poorly conditioned birds.

We see then that condition is an all-important, overshadowing essential to a winning bird and without approximate

perfection in this particular, specimens even of great quality naturally will seldom win in close competition. With some varieties, the relative places on the award list are but expressions of the degree of perfection of condition of the specimens shown. To win, some varieties are more dependent upon condition than others. Most prominent of these varieties that depend largely upon condition to win are all black and all white varieties, and varieties of the red-black color patterns. Some will object to this statement as too broad and certainly condition with nothing back of it will never win; but just as certainly will perfect condition cover many defects and enable a bird of average exhibition quality to win over one naturally superior.

Condition, Examined.—What, then, does condition mean? What does the word embrace? Many things and various things: in some birds, it means the proper fluffy effect or looseness of feather; in others, it may mean the opposite or hardness of feather, and in still others, the American varieties for instance, a mean between these two extremes; in all varieties, the necessary weight, the health and vigor that gives a bright eye, glowing face, slick appearance and gloss of plumage. The shape that a specimen displays in an exhibition cage depends upon condition, for without good poise no specimen appears to good advantage and poise is in most every instance dependent upon condition. Condition of exhibition specimens consists of perfect health, full developed form and plumage, but not over-development in either, the required smoothness and hardness or looseness of feather, the acquired temperament and docility to assume and maintain perfect poise, or correct carriage without which no specimen can create the impression of form.

In the acquiring of good or perfect condition, two principles become involved and must receive consideration. The first is that—

Winning Quality Is Hereditary.—Good showing qualities and aptness for good condition are just as surely transmitted from generation to generation as any characteristics of the species. You have often observed, if you are an exhibitor, that some birds condition easily while it is almost impossible to make others acquire the smoothness of feather and the style or poise that gives them the winning quality. Both of these characteristics, sleek plumage and poise, are hereditary in fowls just as much as good combs, strong undercolor or straight barring. A Wyandotte male that lacks a certain

amount of style should be rejected just as quickly as one that fails in undercolor, and any male that does not possess the attribute of smoothness of feather should not be considered long as a candidate for the head of a breeding yard. So much for condition and heredity. Do not accept the testimony of others, rather make careful observations along these lines if you wish to develop a line of winning specimens.

Fresh Plumaged Birds Win.—Young birds that have just attained maturity are fresh and bright in plumage and fresh and bright birds are certainly attractive and for that reason are the ones that usually win. This necessitates rapid growth and that demands free range and skillful, judicious feeding. This is the problem, then, to solve · how are some birds to be pushed forward and some held back, so that the entire string may be shown in uniformly perfect condition?

Right here is where the writer will prove disappointing, because he knows of no magic that will mature the immature or freshen the fading colors of those that are past prime.

The Art of Conditioning No Mystery.—There are a few who cling to the idea that there are sublime methods for accomplishing anything. There are a few who believe that winning specimens are made so by occult means. Were we to find some agent which would effect such a marvelous transformation in our flocks, we should have accomplished no less than the alchemists of old undertook when they sought to find the Philosopher's stone, a reagent that would form a panacea as well as transmute the baser metals into gold. As well dream the dreams of the old alchemists as to expect to make winning show birds by any except the most thorough processes of nature.

A prominent breeder asked another at one of the New York shows how he managed to bring such a good conditioned string of cock birds to the show year after year. "Would it be asking too much to tell me?" said he. "Certainly not," replied the other, "we just give them ample range, good food and keep the lice from them." The questioner made it very clear that he did not credit the answer. He was evidently a believer in the occult. But as a fact, aside from selecting for breeding year after year very smooth males, that successful exhibitor did nothing more than he suggested to his questioner, who was and still is one of the largest breeders of his variety.

The Pleasing Bird Wins.—The question naturally arises, "Why is a winning bird?" The answer would seem to be one

that most nearly meets the requirements of the Standard of Perfection. But is it? It is not always, even with the most conscientious and the keenest judges. There is in some birds a certain quality that is very hard to describe unless we limit that description to one word and call it the "catchy" quality, or the "pleasing" bird, as it is expressed by the more refined exponents of the craft.

Under our present mode of comparison judging, and this mode has its advantages as well as its drawbacks, the order seems to be that the catchy or pleasing specimens are picked out and then examined for defects according to the judges' interpretation of the Standard. Under this method the bird in poor condition and the one that has not catchy qualities fare alike, being passed by while the pleasing bird, if he has no glaring faults, has a good chance to win.

Too Close Cooping.—There are several methods of more or less merit of fitting for the show room. The best is to let the bird fit itself; the poorest, and that which is more generally used, consists in confining the bird to an exhibition cage two or three feet square and either starving it or stuffing it as the fancy of the owner dictates. In such quarters, this bird has the pleasure of moping around for two or three weeks. It has a clean coop, perhaps, plenty of the best of food and a nice bright tin cup to drink out of, but after all that has been done, this bird is being subjected to the most unnatural life that a fowl could live. If the cage is kept clean, the bird is clean also, but its appetite soon diminishes, its digestion is soon disordered, its feathers soon become rough, and its head loses color. The bird deteriorates from the moment that it is put into the cage. The only advantage is that you have a tame bird. Unless it is endowed with an unusual amount of vitality, it has become so lifeless and docile that it should not even, in many cases, be admitted to classification in the gallinaceous division. Of all the idiotic methods that poultrymen employ, this is the most stupid and foolish.

Range the Best Conditioner.—Those who have exhibited at the early winter shows, say the early part of December or the latter part of November, may have been favored by one of our occasional warm autumns, when the weather permitted keeping the birds out on the summer runs. Under these circumstances the birds probably went into the shows in the best possible condition. If such is not your experience, it is the experience of others. It should be, therefore, our aim to pro-

vide the candidates for show honors with as near natural conditions as the usual severe winter weather and sometimes several feet of snow will permit. The greatest benefits that a bird can receive are, of course, derived from range conditions, but under the conditions mentioned, range is out of the question. How, then, can we supply a substitute? By affording the bird a chance for exercise and by compelling it to exercise if it is not inclined, and by supplying those things that confinement and the season of the year rob it of. Added to these, there are some artificial methods that are simple and harmless that we shall speak of later.

Food and Exercise.—Take the case of a young male bird that is to be conditioned for winter shows under the usual conditions when protection from the weather is necessary and confinement unavoidable. Growth must be promoted and health of the most vigorous kind maintained. The quarters are the first essential. He should be penned by himself, with one female, or some younger cockerels. In general the larger the pen, the better, but one eight feet by nine, and even smaller, will answer in most instances.

The floor should be of dry, clean sand if possible to obtain it at a reasonable amount of expense or trouble, covered with a litter of dry straw. The straw need not be cut, as the birds, if properly trained, will break it up in a short while. This litter should be from two to four inches deep, varying with the size of the birds; the larger the birds the deeper the litter.

The Feeding Method.—In the morning throw in a small handful of scratch feed, scattering it well. After an hour of brisk exercise, give some warm mash but do not allow them too much, because if not hungry, the birds will not exercise. A heaping teaspoonful or two is about all that the average bird will consume without becoming inactive, and unless he eats this eagerly and rapidly, it is too much. An hour or two later scatter more scratch feed and set them to work again. If the birds are immature and you wish to force them a little, feed another small amount of mash at noon. An hour later a few kernels of small grains will induce more exercise, while for the evening meal, a generous supply of good grain should be allowed.

It should be kept constantly in mind that rapid growth depends upon the amount of food the bird can consume and assimilate, and that exercise stimulates the appetite, aids digestion and increases assimilation of the foods consumed,

hardens the muscles and promotes the most rugged health and vigor; which facts sufficiently explain the reasons for feeding often in small portions.

Green food, he should have a little of and but a little. Grit and oyster shells he should have in abundance at all times.

A Good Mash Makes Flesh.—A mash helps the bird to acquire flesh, but too much of it overloads the crop and, hunger being satisfied, the bird refuses to exercise; consequently, it will not eat as much nor can its system assimilate as much. The ingredients of the mash may vary somewhat. Cornmeal and bran may be mixed with a very small quantity of white flour middlings in such a proportion that the mash is a substantial but not a sticky mass. It should be mixed with boiling water, merely hot water does not do. It must cook to get the desired effect. To that end it should be packed closely together and covered for a time. After standing for half an hour, uncover and stir. Allow it to cool until it is warm but not hot; then you have the food for a meal that the fowls will relish.

For scratch feed, any of the small grains will do. Oats are very good, so is wheat if you are not using it for a night feed. But the prepared scratch feeds are to be preferred above all, if they are made of good grain, for two reasons: first, for the variety they supply, but principally for the fact that the grains are cracked into small bits, which make the fowls do the maximum amount of work for the minimum amount of food.

For the final feed at night, nothing compares with wheat of the best quality. This is the main food, but may be alternated with barley with good results. For fowls that are inclined to get too fat, barley is preferable to wheat.

Forcing Immature Birds.—Birds that are very immature and that it seems advisable to force along as fast as possible may take a quite different ration from those that are grown or have ample time to grow. An excellent mash may be made as follows: Put hamburg steak to boil in cold water, allow it to boil until the amount of water is small, and then thicken with cornmeal and a little bran. This may be fed once a day, but not in such quantities that the bird is forced off his feet. This bird should be kept scratching as the others, but he may, if hearty, be fed more heavy grains. A good variety will force a bird along faster than a limited diet.

A very appetizing meal is made of broken crackers and cornmeal and bran. The birds like this, especially if the

crackers are the sweet kind, and if not, they can be sweetened with sugar or molasses. The value of the food as a weight producer may be further enhanced by mixing with scalded milk. It should not be forgotten that these birds must be growing feathers and that it is sometimes necessary to aid them in this. Nothing that I know of is any better for aiding feather development than dessicated fish. A little may be added to one of the mashes each day.

The Best Forcing Menu.—To make myself plain, the best forcing feed consists of the broken scratch feeds, the sweet cracker mash and the beef and meal mash with wheat or mixed grains for the hearty meal at night. In very cold weather a few kernels of whole corn might be thrown the birds, after the evening meal and the last thing before they go to roost. A very little buckwheat may be added to the grain mixture.

Feeding for Color.—With reference to feeding, two classes of birds might be considered, as each class must be fed in a different manner. They may be divided into white birds and others. The methods of feeding each differ, but the methods that have already been described are tolerably well suited to either class. These methods can be modified somewhat and are then better adapted to each of the special classes.

Feeding White Birds.—By white birds, I refer to those that have white in their plumage, not necessarily only the solid white varieties. Silver, Silver Penciled, and Columbian Wyandottes, for instance, should be fed precisely as pure white birds are.

It is a generally recognized principle that clear white color, often described as pearl white, chalk white, or dead white, cannot be obtained in its clearness and purity when allowing these white birds oily foods. Therefore yellow corn, meat scraps, meat fats, or any foods of an oily nature are excluded from their diet. Those who wish to feed meat and are still very cautious, may boil fresh beef, allow the liquor to stand and cool, when the fat may be skimmed off. The meat and broth may be reboiled and stirred into the mash, which has already been thoroughly mixed. Cut green bone should be treated in the same manner, if fed to white or partially white birds. After boiling both lean meat and green cut bone, you will find an amount of fat that will surprise you.

Foods That Develop Gloss.—For the varieties which require a glossy plumage, the fats and oils are a great help if

not an absolute necessity in getting birds of certain colors into good condition. The best foods to produce gloss are corn, buckwheat, sunflower seed, beef scraps and beef tallow. These, with the single exception of corn, cannot be used in quantity or as staple foods, as they "age" the plumage and impair digestion if given in excess. A wonderfully glossy plumage may be produced in a remarkably short time if conditions are favorable. Besides oily food, plenty of sunlight and housing conditions that embrace dryness and very moderate temperatures are necessary.

Constant attention wherever administered is beneficial to fowls for whatever purpose kept, and particularly so to fowls that are being conditioned for shows, but is not absolutely necessary. Many exhibitors are so situated that they cannot attend their fowls during the day. I believe that the best method they can pursue is to feed the mash late in the afternoon, and in the morning, give the birds grain in deep but light litters to scratch for during the day. Many contrivances may be devised to induce or even compel exercise; for instance, a cabbage may be hung so high that they will have to jump a little to reach it. Grains may be fed in automatic feeders in connection with deep litters, etc.

Grouping the Birds to Be Conditioned.—The grouping or arranging of the birds with relation to their association with one another has oftentimes much to do with their development. A male put alone sometimes loses his interest in life, but not always. If he is a cock bird, one or two hens that are active and alert should be placed with him. If it is necessary to raise his weight, feed him alone, once or more daily. A cockerel may be allowed to run with one or two hens, but if he is not too far along, it is preferable to allow the society of two to four younger cockerels. If he maltreats them, there are but two alternatives left, the society of females, or isolation. Young males, not too far along, generally do best in flocks of six to eight, but these must have grown up together. Even then the time will come when they must be closely watched. At the first signs of fighting, both birds must be removed. Females can be kept in groups of four to six. Quarrelsome females must be kept alone, as they are sure to ruin the good appearance of their companions.

Taming the Show Bird.—A show bird should be tame, so that it does not become frightened when handled. The advantage that a bird that will pose while the judge is in front of

the cage and handling it, has over one that gets all out of shape the moment the judge touches it, is obvious. While continuous cooping of any fowl is a crime against good condition and even against good sense, a half-hour a day or so is necessary for all candidates for show honors. The bird may be tamed quickly while cooped by offering tid-bits such as meat and kernels of whole corn from the hand. By stroking with the hand, the bird can be taught the correct pose for the show coop.

Washing the White Fowls.—In these days of strong competition, an unwashed white bird is practically debarred from winning. An unwashed bird, be it ever so white, looks very cheap beside a well washed one of much inferior color. This is a branch of the industry in which a certain few have become so proficient that it is practically impossible for anyone not an expert in this line to defeat them. There are many soaps and preparations used for washing white fowls, but Ivory soap and soap-bark are the most generally used. The best washers thoroughly lather the birds to the skin, and use two rinse waters. The last water contains a very little blueing. This will show in the feathers if too much is used and beginners are almost sure to use too much. If not thoroughly rinsed, so that all the soapy water is removed, the feathers will curl and crinkle.

In late years much is hinted at concerning the use of bleaching agents that bleach a creamy or yellow bird, otherwise fine, so that it becomes a winner. No doubt, hydrogen peroxide, the active agent of which is a free atom of oxygen, is used to a certain extent. So is ammonia and other cleaning agents. Their value lies more in their power to remove stains and dirt than in any real bleaching process that takes place.

The process of drying is very important and is in itself an art. The most effective method of whitening a bird is to repeat the washings. Persistency in this counts as in everything else.

The best treatment for the comb, face and wattles of a perfectly healthy bird is to wash in soap and water, dry and let alone. When the face does not show good color, massage and treat with a very small amount of vaseline. To keep the color in the face, repeat the massage with a small bit of vaseline. This treatment is simple and will bring more color than would be supposed. There are many lotions and drawing, burning liquids that are applied, but they are all at best

but temporarily efficient. A short while after the application, the head possesses less color than before.

Cleaning Shanks and Toes.—The shanks and toes should be washed in warm soap-suds, dried, and then treated with cottonseed oil, vaseline, or something of that nature. When there is much dirt under the scales, it should be removed, which can best be accomplished with an ordinary wooden toothpick dampened with some cleansing liquid. Many shanks and toes are improved by brushing dry, with a stiff brush before using the soap and water. (A. C. S.)

WASHING AND CONDITIONING WHITE BIRDS FOR THE SHOW ROOM.

Washing white birds properly presents one of the greatest difficulties to the amateur fancier. To get any bird into the show room in perfect condition, is really quite an art; and white birds present the additional problem of washing. There is, however, no reason why anybody, who is careful and painstaking, can not show white birds in good condition. Birds other than white seldom require washing, except where a bird has become very much stained or soiled, in which case a careful washing will improve them. The following instructions about temperature of water, in drying room, and other conditions, will, if carefully followed, bring success.

Coop Training.—All birds that are to be shown, whether they are to be washed or not, should be cooped up in cages similar to those used in the shows. Coop them up for about three days, so they may become accustomed to the cage and to being handled by their attendant. Then put them back into their usual run for a few days. Alternating in this way, they will get the necessary coop training and show-manners without becoming stale from too long confinement in small quarters. Unless the bird has some such preliminary training, together with such special feeding as his condition requires, no matter how excellent the wash, he will not appear at his best. This preliminary training should extend over a period of about two or three weeks.

Equipment.—Birds should be washed from forty-eight to sixty hours before they are shipped to the show room. If you are going to wash many birds, a rubber apron and rubber boots will be necessary. The details of washing white birds

are as follows: Start with three ordinary wash tubs about half full of water at a temperature of from 103 to 110 degrees. Birds can be washed in a room at a temperature of about 70 degrees, which is as warm as an attendant can work in comfortably.

The Process.—Grasp the bird firmly by the legs, lower him into the water, and begin washing by lathering him with a cake of soap. Soap counteracts the oil in the bird's feathers and allows the water to penetrate to the skin. Be careful in handling the feathers until you get them thoroughly wet; afterwards you can rub them enough to build up a heavy lather all over the bird, very similar to the process of shampooing the hair. Then rinse this lather out, and repeat the same process. If the bird seems very dirty, give him even a third lathering. The rinsing of the heavy lather out of the feathers seems to carry all the dirt and stain away. Then go over the bird's comb, face, wattles, and legs with a nail-brush and heavy lather. Also scrub the wings and any stained spot on the bird's plumage with the nail-brush. Then thoroughly rinse the bird successively in the second and third tubs of water. You can wash from four to six birds, according to how dirty they are, before changing the water. Then empty all three tubs and start again with clean water.

The Water.—The character of the water you use will influence results to a considerable extent. Soft water, that is also white, will give better results than hard water. Sometimes water contains iron or other mineral substances that affect the color and the finish of the feathers. You can generally find suitable water in every locality, by a little effort, or you can catch rain water, melt snow or overcome the difficulty in some way. Borax or ammonia are sometimes used to soften hard water, and they help some; but all such agencies have a tendency to injure the fabric of the feather, and you do not get quite the beautiful satin finish with anything but pure, naturally soft water and some mild soap. All of these things have to be carefully considered.

Blueing.—Until very recently, all white birds were blued slightly in the last rinsing, and this practice was used by all conditioners for many years, but is gradually being abandoned, for the reason that otherwise well conditioned birds were left out of the awards every year on account of being too blue, streaked with blue, or in some way presenting a bad appearance on this account. If done just right, this may add slight-

ly to the apparent whiteness of the bird; but it is impossible to give explicit directions for blueing, for the reason that water from different sources requires different amounts of blueing to produce the best results, and the different blueings that are sold throughout the country differ very materially in strength and composition. So, if you adopt this practice, you will have to experiment beforehand as to the amount of blueing you will use. The amount that produces good results in the laundry is generally also about right for birds.

Drying.—After the bird is washed and rinsed, put him into a coop similar to those used in the show room; and if possible, one having a wire netting bottom, so that he can drain out for about fifteen minutes. Then transfer him to a coop in a room where the temperature is from 85 to 90 degrees. He will dry out there in proper shape in three or four hours. Then gradually reduce the temperature to about 70 degrees, at which temperature the room should be kept for eight or ten hours longer. After that he should be able to stand normal temperature as before washing.

Some of the larger farms have special rooms fitted up for washing and drying, arranged so that they can have rooms at different temperatures. Lacking this equipment, you can get about the same results by moving your birds to and from the fire or other source of heat. You can tie a thermometer to the front of the coop in which your bird is drying, and keep him in about the correct temperature in that way. To a certain extent, the actions of the bird indicate the proper temperature; as, when he is shivering, get him closer to the fire; and, if he begins to pant, it is time to move him back. Individual birds differ as to the amount of heat they need and can stand; and they will indicate, to the observant attendant, the proper procedure.

Drying Long Tails.—In washing a Leghorn or any bird that has long sickles, it is well to fan his tail out after he has been drying about an hour, or just as the feathers begin to web. Let one person hold the bird, and an assistant fan the tail for about fifteen minutes. Otherwise the sickles are liable to dry twisted or to come with a poor finish on the edge.

Impossible Specimens.—Some birds have a type of feathering that does not improve by washing. Anyone who has washed many birds can detect this at a glance, as a thinness of the fabric of the feather, as we express it. This style of feathering seems to go to pieces during the washing and dry-

ing process, shrivel up and finally presents an unsatisfactory appearance. So it is always well to select, train and wash a few more birds than you actually intend to show. This precaution will save you disappointment, should anything go wrong with any of the birds up to the moment that judging actually begins.

One of the objections to washing birds for exhibition is that the same bird can seldom be shown more than twice during a single season; and sometimes but once, if you want to get the very best results. The reason for this is that washing and drying takes a good deal of the natural oil out of the feathers, which causes them to become brittle and they will begin to break up, and eventually to lose the natural sheen on the feathers which makes them look so attractive. However, any bird that is to be used for breeding should not be shown more than once; because, in conditioning, washing, and showing the bird, getting him home and rested, etc., and ready to go into the breeding pen, will occupy three weeks or a month. During this time the bird has been inside in a warm temperature, and it is something of a shock to his system to go back into a breeding pen in what may possibly be zero weather. Still a strong, vital bird will generally stand this for one trip; but, when you keep repeating this for show after show, the bird becomes softened and loses his natural resistance to cold, with the result that he contracts a cold or in some way gets out of condition. So, for this more vital reason, birds that are valuable as breeders really should be shown but once in a season. It is hard and cruel to keep a bird on the jump from one show to another from August until late in February. This practice is generally the result of greed or ignorance. However, such a practice brings its own penalty; because, after such treatment, your fine bird will not breed you the sound, vigorous stock that he otherwise would.

To Remove Stains.—If you should find a grease spot on one of your birds that did not come out in the wash, you can remove it by using gasoline; but you must exercise great care in doing this. Take the bird into the open air, and do not use more than is necessary. It is possible that you might just pick some birds off inside.

Feeding.—After the birds are dry, feed nothing but hard corn until after they are judged. Be sure that you have suitable shipping coops.

Shipping.—A good many birds lose their chance of winning by poor shipping in transit to the shows. Inspect the coops to see that they are high enough that the bird can easily stand upright; also see that no sharp nail points are exposed on the inside, which may tear the bird's comb or otherwise damage him.

For the ordinary show where competition is not very strong, perhaps all this preparation is not absolutely necessary. It is possible that you might just pick some birds off the roost the night before, and get away with it; but it is a good plan to always show your birds in their best possible condition. The more earnest effort you put into the poultry business, the better your standing will be with the poultry fraternity, and the more pleasure and ultimate profit you will get out of it. (M. L. C.)

CHAPTER III.

SHIPPING TO SHOWS.

CONSIDERABLE attention should be given this, one of the necessary steps in showing fowls. Though it is but a single step and a short one compared with the number and length of time it takes to grow and to condition exhibition fowls, yet it is fully as important as any of the previous or subsequent steps in the process because of the dangers involved, due to unusual, strange conditions, such as confinement, restriction of feed and water, and the inadaptability of some fowls to such changes in the routine of life, to exposure to weather conditions, extreme in either heat or cold, to sudden changes varying from one extreme to the other, as when taken from a heated car in cold weather in which they have perhaps been packed all too closely together, and transferred in unprotected trucks to other transfer points or to the show room.

Shipments Dependent Upon Three Conditions.—From the foregoing it is apparent that three conditions are highly desirable. First, that the bird be fortified to withstand these changes of temperature and weather. The best means of fortification against these is to select naturally rugged birds that are in excellent health and conditioned to withstand these changes. This is, however, the subject of another chapter.

Second, that the style of shipping coop provided furnishes as much protection as possible against these changes and at the same time allows a sufficient supply of pure air to insure the good health and condition of the occupant or occupants. Because the shipping coop does not allow always for a sufficient supply of fresh air, the danger of overheating, particularly in express cars, is also incurred.

Construction of Shipping Coops.—The proper construction of a suitable shipping coop involves all these questions, also the question of how much the occupant may be confined without injury of either health or condition.

Large and Small Coops.—Obviously when the good appearance of the bird counts for so much it will not do to take the slightest chance of injury even if that injury merely consists of rubbing the plumage or the breaking of a single principal feather. Many claim that too large coops involve more and greater injuries in this latter regard than smaller ones. The idea advanced is that the bird breaks the feathers by turning around in the coop and that when the coops are so narrow as to prevent it, there is less liability to injuries of this kind. The style of coops vary widely. One large poultry show will show scores of designs. Shipping coops are usually built of wood or have a framework of wood covered with cloth.

Cloth Covered Coops.—Cloth tears so easily that express companies will not receive cloth covered coops at single rates unless the wooden frame over which the cloth is put is so constructed that it will hold the bird even if the cloth is not put in place. Cloth covered coops, when the frame is constructed in accordance with these regulations, are very satisfactory except in extremely cold weather. They offer the advantage of good ventilation at all times and, it must be admitted, far too much when the weather is severe.

Wooden Coops.—Wooden coops are without question the most often used and the safest from many points of view. They are certainly stronger and less liable to be broken and it is for this reason that they are most often used. Ventilation is the difficult problem with wooden coops. If they are open in construction the birds take cold when left out of doors or in a draft for any length of time. If they are closed the birds sometimes smother when large numbers are shipped, as they often are when poultry shows are being held. This, of course, results from stacking a number of coops together. The coops in the center of the stack or against the wall receive an insuf-

ficient supply of air or become overheated. There is no known way to prevent this occurrence and at the same time properly protect the birds against the weather, unless the handlers or messengers of the express company will use reasonable precautions against overlarge stacks and overheated cars.

Material in Wooden Coops.—Wooden coops, as a usual thing, are made with solid sides and bottom and are left as open on the top as possible and still retain the bird or birds. The sides are usually made of three-eighths inch matched lumber and the floor of one-half inch, or sometimes thicker boards. A sufficient number of narrow strips cover the tops to keep the birds inside.

Dimension of Coops.—Some shippers make the top higher at the center than on the sides to prevent setting other boxes or packages which interfere with ventilation on top. Raised strips, one at each end, an inch or more thick are sometimes used to prevent too close packing. This allows some ventilation, enough in ordinary cases. Open spaces at the top, and on the two sides, two inches or a little more in width are sometimes left and answer the purpose fairly well.

Elaborate coops of much heavier construction with hinged or sliding tops are often used. These afford, of course, rather more protection, but because they are much heavier, their use increases the cost of transportation very much.

Shipping White Birds.—Birds of white or light colored plumage are usually shipped in coops that are so constructed as to protect them from dust and dirt. This result can be tolerably well accomplished by tacking cheese cloth or a similar fabric to the top of the coop, or by using closed tops and providing more ventilation through the sides. Large openings even on the side should be covered with burlap, cheesecloth, or some material that will prevent dangerous drafts and also, in a measure, keep out the dirt and dust.

While there is some danger of the plumage becoming soiled while in transit, by the dust and dirt that is in the air, there is also some liability from the coop itself, if it has been in use before. Consequently, all coops should be thoroughly clean before receiving the birds. This is a good plan to follow whether shipping to a show or customer.

The greatest danger to plumage aside from that of breaking feathers is that it will be soiled by the droppings. To prevent this possibility as effectually as possible a bed of some absorbent must be provided. Sawdust or planer shavings answer

the purpose as well as any material yet used, unless it is a combination of the same and long straw, with the straw on top. Clean, hand-threshed, rye straw is best suited to this purpose. While it is clean and unbroken, the droppings have a tendency to fall through onto the sawdust or shavings which adhere to them, absorbing the moisture contained in them, or covering them with a thin coating of whichever bedding material is used; being protected in this way and by the straw above, the plumage is kept clean. Unless shipments are very long, birds shipped in coops fitted up in this manner will arrive in excellent condition of plumage, provided, of course, that they started in that condition.

Feeding During the Journey.—When the journey is of such length that the fowls must be confined to their coops for more than two or three hours, food should be supplied. This should consist largely of the small grains, but a supply of green foods, which serve to entertain the fowls and keep the digestive tract in good order, is important because the fowls must feel their best to look their best. There is certainly a chance of their crops becoming overfull if the fowls are not accustomed to these foods. However, they should have been previously accustomed to them. The green foods should be of such a nature that it will not soil the plumage and in the case of white birds, greens are usually omitted from the bill of fare while the birds are in transit.

Shells and Grit.—A small handful of oyster shells and grit should be supplied. This is doubly essential because the fowls will in all probability be deprived of both during the show.

Whether water is necessary or not depends upon the time of confinement in the shipping coop. In cold weather birds may be deprived of water for twenty-four hours, or even a little longer, without visible inconvenience or discomfort if plenty of succulent food is provided. The more succulent the green feed, the longer the period during which water may be withheld. Without water the fowls are less liable to be soiled in transit and usually arrive in much better condition than when water cups are a part of the coop fittings. When it is necessary to supply water in transit, cups that are partially covered or have a float should be used, particularly when white birds are shipped. After the birds have been washed and conditioned for exhibition, shippers of white birds supply water only when absolutely necessary.

As the birds must usually return in the same coops as those in which they are shipped, labor and time may be saved by supplying enough grain, grit and shell to last throughout the return journey.

Arrangements for Shipping.—The exhibitor should first of all become acquainted with the dates of the exhibition, the first day when the exhibition room will be open for birds, and the last minute when they will be received for competition. The most desirable time to have them enter the show room should be determined, as under certain conditions it is better to have them arrive at the first possible moment, while under different conditions one would not want the birds to arrive until the very last moment.

Consult the Transportation Agent.—The transportation agent should then be consulted and the exhibitor should become acquainted with the route, the changes from one route to another, from one car to another, and all the changes involved, whether they mean long delays and whether the birds will be exposed or kept in comfortable rooms, etc. Sometimes information along these lines will make an entire change in the shipping program advisable, as by so doing long waits, poor connections, exposure from weather with chances of storms, may be eliminated, or the chances of the same greatly reduced. The best facilities in shipping should always be sought. Expense should not be the first item considered.

Travel with Your Birds.—When possible to do so without incurring too great expense or making too large sacrifices of one nature or another, it is advisable to travel not only by the same route as the birds do but by the same train. The advantages are many. A small gift or kindly words will often keep coops on a level that otherwise would be tilted sharply, which is of obvious advantage in preserving the good condition of the bird's plumage as well as its tranquility, both of which are essentials when competition is keen. Express cars are very apt to be so overcrowded in the show season, when all coops are going in one direction, that some wait; your coop need not and probably will not if you are present to use gentle suasion. Safe and sane stacking is another comfort that your birds will enjoy if you travel with them, and comfort is necessary for a highly conditioned show bird if it is to remain highly conditioned. While it is usually against the rules of express companies, the writer has often been permitted by the messengers to remain in the car to feed, water and in

some cases exercise the birds. Such attention is naturally beneficial on extended or prolonged trips.

Many appreciable and obvious benefits accrue if you are with your birds and watch them every waking hour. Small advantages tell in the long run and more likely than not, these small advantages, just the barely appreciable things, will turn the scale in your favor. (A. C. S.)

CHAPTER IV.

CARE IN THE SHOW ROOM.

THE largest and most prominent exhibitors accompany their birds to the show room and remain with them throughout the show or hire a competent man to do so. The smaller exhibitors do not usually accompany the birds except at their respective local shows. It often occurs that many birds are shipped a great many miles to important shows and entrusted to the care of individuals employed by the show management. Very often these employees are incompetent because inexperienced in either handling or caring for birds. Undoubtedly, the greatest harm is done by the handling of assistants that are inexperienced and, very often, even uninstructed. Experienced help is always hard to obtain for temporary positions, and no exception to this statement can be made when poultrymen or even men competent to handle show specimens, perhaps only for a few brief minutes, are required. Because of the effect upon their value of even the slightest injury, perhaps merely the breaking of a single feather, particularly, if such is affected by a disqualifying clause and on this account open to suspicion, it is very desirable for an exhibitor to go with, stay with, care for and come home with his birds when it is possible for him to do so without too great a sacrifice on his part. Besides the careful handling that he can bestow, there are many precautions to take against exposure and accident, and many things that one can do to increase the chances of winning. That, to attend to these things is worth while, may be soon proved to anyone's satisfaction by watching closely the movements of the successful and unsuccessful exhibitors. The time of the former class is spent on their birds; that of the latter, generally in social duties.

Delivery.—Every moment before judging is a precious one, as there is much to be done and much may depend upon what is done or not done. First, the birds must be located. If they are scheduled to have arrived and have not, the express company should be at once notified and pressure applied to bring about a quick delivery. As soon as they are delivered, see that they are in a comfortable place. Before the birds are put in the exhibition cages, the cages should be cleaned and supplied with a proper amount of bedding, water, grain and grit.

Clean Cages Important.—It is very important to rub the exhibition cages until free of all dust, dirt, or mould, especially if you have white or light colored birds to exhibit. Otherwise, the plumage becomes so soiled in a very few hours that the birds present a very poor appearance, compared to those who have been washed white and kept clean. Metal cages especially should be thoroughly cleaned before white birds are put in them. Old papers or rags are suitable cleaning agents, though clean rags should be used in the last cleaning operations to insure its thoroughness.

Bedding.—The bedding may be planer shavings, sawdust or straw, but the first two are most often used. The bed or litter should be of sufficient depth to allow the birds to stand comfortably which they can not do on bare boards. From one-half to one inch of shavings or sawdust should be ample, but these must be renewed from time to time for several reasons. First, for cleanliness and sanitation, which includes elimination of odors, offensive alike to patrons of the show and to the birds themselves. The ammonia that arises from unclean litter or bedding is not only disagreeable but may inflame the organs of the bird's nose and throat and become the cause of more serious troubles. Renewal of bedding, daily, is advisable.

Drinking Dishes.—Diseases of the mouth, nose and throat are often transmitted because of unclean and non-disinfected drinking dishes. Before using and before the birds are caged, the drinking dishes should be washed and disinfected or thoroughly scalded, if possible.

Protection Against Drafts.—The doors to the show room are often left open while the birds are being received, and in such a manner as to allow strong drafts in the show room itself or certain parts of it. In locations exposed to drafts, the birds, if caged, must be protected by covering the tops

and possibly the front of cages with paper, or cloth, during that time, and subsequently if need be. If the draft is strong and the temperature low, the birds may be allowed to eat and drink in the show cage and returned to the shipping coop until necessary to feed and water again, or until conditions for caging are more favorable.

Change in Temperature.—Many times, not as much heat is provided during the night as during the day. In such cases it is well to cover the tops of the cages as you are leaving for the night. This not only keeps the birds warmer but darkens the cages besides, and the birds rest better. This plan may be carried farther and the front of the cage covered if the temperature is so low that it seems advisable. With birds of nervous temperament this scheme assists materially in keeping them in good condition.

Feeds and Feeding.—In a large show individual attention cannot be expected of the regular show attendants, and in small shows they are not likely to accord it. For this reason owners or caretakers should take to themselves the duties of feeding as well as other cares. First, because the ordinary feeds of the show room lack variety. Second, it is by no means certain that feeds will be given at the proper time. Third, feeds are not always of a suitable nature, and fourth, not given in the right amounts.

Variety is Necessary.—Show room feeding often consists of giving a supply of whole or mixed grains, usually cracked or whole corn, wheat or oats, perhaps a mixture of all these or of any two, twice a day. Very often this is the entire bill of fare. There is, consequently, a lack of meat, greens, grit, shell and mash, all of which are necessities for a continuance of normal digestion. With a restricted ration, the digestive organs soon become abnormal, a condition that may soon severely affect the good appearance of the specimen.

Meat and Greens in the Show Room.—As a rule feeding in the show room should not differ materially from feeding at home. If the birds have been accustomed to greens and meat at home, greens and meat should be fed in the show room, though not necessarily in the same form. Substitutes of the same general nature will be relished for the sake of variety. No fowl will object to a little Hamburg steak or fresh meat in preference to beef scraps, or to cabbage as a substitute for alfalfa or clover. There may be a slight objection to making such substitutions on account of expense and because the

fowls may continue to demand such palatable foods, once they have acquired a taste for them, but if they are weaned gradually, no harm will result. Lack of meat and greens often results in feather-eating when birds are shown together as in the breeding pen. It is a wise precaution to hang a part of a cabbage or a bunch of lettuce in the top of the cage which contains a breeding pen, of the lighter breeds particularly, to prevent this trouble and if this is not efficacious, hang up also a small piece of fresh meat. The more busy fowls are kept, the less feather picking is practiced.

Grit and Shell.—Grit and shell may not be absolutely necessary during a short show, but a small supply is often appreciated by the fowls and serves a good and certainly not a harmful purpose.

Overfeeding and Underfeeding.—Overfeeding is more likely than not to be practiced by the novice or by the average inexperienced attendant unless he neglects to feed at all, when he practices underfeeding. Birds are sometimes underfed, not for lack of feed, but because the hall or the coop is so dark that they cannot see to eat. In such cases they must be moved to the light and fed regularly, or perhaps given a grain, the physical nature of which makes it more visible than that which they have been fed. Sometimes, in small shows so many birds are confined in one cage that it is impossible for them to eat. This is false economy as the birds lose rapidly in both weight and condition.

Too Intensive Caging.—There are, also, other disadvantages in connection with too intensive caging. No bird shows to advantage when caged with others, even if only one other, except in case of mated pairs and pens in correspondingly large cages, and the more they are caged together, the more inferior they appear. To properly appreciate a bird, a spectator must see the whole of it at a glance, not a portion. When caged with others and, as is often the case as closely as though being sent to market, the best bird conceivable fails to impress either the onlookers or the judge. Specimens of the finest quality will fail to win for you under those conditions. Consequently, we may conclude that of all the economies practiced in the show room that of caging closely is the most foolish. If prizes are worth anything they are certainly worth the coop fee which is usually about the traditional two-bits.

The specimen is supposed to have been "conditioned" at home. This term, as pointed out, refers to the condition, fit-

ness or good order of the plumage and to general health and state of flesh. Little or nothing can be done in the short time that the bird is in the show room to materially affect any of these conditions. The object of the various measures that have been or may be taken while the bird is within the exhibition hall is to maintain the favorable aspects brought about before arrival.

There remains, after the birds are properly caged and fed, only a few duties that may affect the candidate's chances for honors. These are generally termed the finishing touches, and consist of cleaning the head and adjuncts and the shanks and toes. The latter especially should have been attended to at home as part of the process of conditioning. If not, however, or if either shanks or toes have become soiled in the meanwhile, they should be cleaned and afterwards repolished if necessary. The head and adjuncts may be redressed to advantage as described in the chapter on conditioning for show room.

The exhibitor should, of course, be at all times on the lookout for false, broken, or ragged feathers. By general custom the removal of these is permissible.

After the judging, exhibitors are inclined to relax in their efforts to keep their birds at their best. To a certain extent this is good policy. Birds, no matter how well accustomed to being handled and pampered, will get tired of too much attention and they, as well as the exhibitors, need relaxation. Relaxation, however, should not be carried to the extent of actual neglect in the case of the birds. The regularity and variety of feeding operations should be maintained from start to finish. Nothing whatever should be allowed to interfere with these rules, for neglect in these particulars, even for a day, may affect the bird more seriously later; and at no time should the exhibitor, as a breeder, lose sight of the fact that his best birds in the show room are his best birds at home, as a rule. The value of his flock next season will depend very largely on what these birds which he has in the show room this season will produce. What they produce depends, not alone, on their quality but on their health and vigor which is very easily affected, adversely, by neglect at any time and at any place, at home, enroute to the show, on the return, and again at home. Care that is well calculated to meet these varying conditions and keep the birds at their best, physically, is one of the many essentials of success in the business of producing "the Best" in Standard Bred Poultry. (A. C. S.)

CHAPTER V.

RETURNING FROM THE SHOW.

BIRDS that are returning from exhibitions are always shipped by the shortest and most direct routes and always by express, except shipments that are local or so nearly local that they may be taken by the exhibitor's own conveyance or one that he has hired. Freight shipments are too slow and unreliable even for the return journey when, though the exact time perhaps of arrival is not important, the duration of the journey must not be of such length that it is wearisome to the birds being shipped and has, consequently, a detrimental influence on their health.

Low Return Rate.—Generally, a lower rate is secured by allowing the same express company that transported your birds to a show, to handle the return shipment. Usually, two-thirds or three-quarters of one rate is saved thereby, if fully prepaid when the shipment leaves the home office.

A Change in Temperatures.—As to preparing the birds to withstand the return journey, little that has not been may be done now. It should be remembered, however, that the birds have been in a room that ordinarily has been several degrees warmer than a poultry house usually is, at this season of the year, and, therefore, the birds may be a little more sensitive to weather conditions than when they started on the trip to the show; consequently, all the protection that was provided for the first trip should be used for the return. Usually, the birds are shipped out of the show room in the same coop in which they entered it, and the protection would be identical for both trips.

Condition of Coops.—The coops should, however, be inspected to discover any break that may have been incidental to the journey, and if the same is so located as to cause drafts or of such a nature as to afford a possible chance of injury to the fowl, it should be repaired securely before the birds is cooped. The shipper should see that there is ample bedding; if it is the same that was in the coop when it started from home, it should be ascertained to be in sanitary condition, and perfectly dry above all things.

Feeding for the Return Journey.—Grit, or shell, or both should be there in small quantities, and wholesome grains in a sufficient quantity for the needs of the birds during the journey. All of the above could have been put in the coop before it left home, unless the journey was a very long one. A liberal supply of succulents must not be forgotten. Besides their value as an aid to indigestion, they are very palatable and the fowls enjoy them. Like a good meal on a diner, they serve to "kill time" and induce the birds to forget their confinement and discomfort.

As in the case when shipping to shows certain advantages such as more careful handling, quicker transfers if transfers are necessary, better positions and more careful stacking in the car accrue from traveling along with the birds.

Home Delivery.—Arrangements should have already been made for the delivery of the birds immediately after their arrival at the home express office. In large cities deliveries are sometimes slow on account of the distance of the exhibitor's poultry yards from the express receiving station, and often many deliveries have to be made before the yards are reached. When such conditions prevail and the express company's officials are obdurate and cannot be induced to make a special delivery, as they generally can be, however, when a reasonably large shipment is involved, it pays, if the birds are valuable, to employ a truck for the special purpose of obtaining a prompt and direct delivery. (A. C. S.)

CHAPTER VI.

CARE OF THE BIRDS AFTER THE SHOW.

Changed Conditions.

THOUGH safely home, not all the possible dangers to the birds are over by any means. While in the show room, the birds have become accustomed to comparative high temperatures and, in all probability, entire absence of drafts; and unaccustomed to cold poultry houses, with cold floors, an atmosphere more or less laden with moisture, and a ventilation system that in all probability is subject to perceptible drafts; conditions that obviously contrast widely.

Gradual Changes.—Manifestly, the birds should not feel the full force of these changed conditions at once. But as a

matter of fact, if a little common sense is applied to our methods, and the changes be made as gradually as possible, no harm seems to result therefrom, and the birds even take up the life of the pen precisely where they left off. A few simple rules, obviously of good sense and judgment, are all that are necessary to follow in ordinary cases to insure these fowls against sickness.

Removing from the Shipping Coops.—It would certainly seem to be unsafe to transfer them from their shipping coops to the poultry houses during the night, early in the morning, or late in the afternoon during severe weather. It would be far more safe to select the middle of a bright sunny day, if such a day accommodatingly presents itself within a reasonable length of time, as the auspicious time to make the change.

If the birds arrive during the day, they should be taken from the coops long enough to get food and water, and depending upon conditions, be allowed more or less exercise. If the weather is mild, or the poultry house is comfortable, there is no reason why they should not remain there, if contrary conditions are encountered, they should be returned to their shipping coops and if necessary these should be covered. The birds should be, however, again taken from the coops as early as appears to be safe the next morning and may then remain in the poultry house indefinitely, unless it is so cold that they could not remain there under ordinary circumstances without freezing, in which case they should be returned to the boxes, and the boxes covered if necessary. It is much better to take precautions against disease than to be obliged to try to cure it.

Prevent Diseases of the Head.—The diseases that are most apt to be contracted in the show room and during shipment are those of the head, including the nose and throat, and intestinal disorders. To prevent the former, it is well to bathe the head in a slightly warm solution of some good disinfectant, and the throat may be easily cleaned by swabbling it with a flight or secondary feather after dipping the feather in a solution of hydrogen peroxide or listerine and water, half and half. These treatments, especially if repeated two or three times, often prevent such diseases as cold, canker, roup and chicken pox.

To Prevent Intestinal Disorders.—Intestinal disorders are harder to control but much benefit may come from administering a mild laxitive as soon as the bird is back from the show; not wholly because that disease may be warded off, but be-

cause the general health of the bird may be greatly benefited. It was the practice of a very successful exhibitor, with whom the writer was long ago acquainted, to give each bird on its return from a show a small cube of beef or ham fat, dipped lightly in red pepper. This seems so simple as to be folly, yet we readily can see that the fat was, because of its oily nature, warming and laxative, while the pepper is known to be a stimulant to digestive action.

The Use of Condiments and Laxatives.—Another equally successful exhibitor and breeder who was most skillful in the care of chickens, mixed equal parts of ginger, charcoal, flowers of sulphur, and powdered charcoal together, added enough melted lard or flour and water to hold the ingredients together, and gave each bird a pill about the size of a large pea. We can understand that this is mildly laxative and stimulating to digestive action. These remedies are mentioned because of their simple, harmless character, and because they are usually available.

Compel Exercise and Feed Lightly.—Aside from these simple precautions, it is necessary to mention but one or two more, and these are so important, so obvious and so well known that it is not necessary to go into very much detail. It is known by every exhibitor that birds, partly because they are overfed and underexercised, become lazy if not dyspeptic during the time they are so closely confined. It is therefore necessary to feed lightly for a few days and in such a manner that the birds must exercise. This is easily accomplished by supplying the same light, yet deep litter that is so necessary to get birds in show condition, or to keep hens laying briskly in the winter months.

Notwithsanding the usual demands of the show room and the incidentals connected therewith upon the physical and mental systems of fowls entirely unprovided for by nature in the original parents, the difficulties of conditioning and showing fowls seems very small and trivial to anyone who has even a very few years of experience in this fascinating sport. (A. C. S.)

PART FIVE.

PRACTICAL POULTRY KEEPING.

SECTION I. THE MATURE FLOCK.

Chapter I. HOW TO START.

Chapter II. A BACK YARD FLOCK.

Chapter III. HOUSING THE FLOCK.

Chapter IV. SANITATION.

Chapter V. FEEDING THE BREEDING HENS.

Chapter VI. THE HEALTH OF THE BREEDING FLOCK IN CONFINEMENT.

SECTION II. THE YOUNG STOCK.

Chapter I. HATCHING AND BROODING.

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SECTION I.

THE MATURE FLOCK.

CHAPTER I.

HOW TO START.

A WELL KNOWN American humorist once said, "The way to start is to begin", and that applies as well to poultry keeping as to any other enterprise. There is no rule or set of rules for starting in this business which, if followed, will guarantee success, or which, if neglected, is sure to be followed by failure. How well one applies himself to the details of the work and how well he understands the business is far more important and necessary to his success than that he start at any particular time or according to any particular plan or system.

Selecting the Breed.—Undoubtedly the first thing to do is to decide on a variety which has a special appeal to the person about to take up the work of breeding standard-bred fowls. If he decides to breed Wyandottes, he has his choice of all the varieties of that breed which are described in this volume and all of these will give perfect satisfaction if properly bred, housed and cared for. As all varieties are required to have the same shape, the matter of choice is merely one of color. As it is a generally accepted fact that a breeder will do best with the kind he likes best, it is by all means advisable to select the variety of Wyandotte which appeals most to him on account of its plumage, bearing in mind that in selling eggs and stock for breeding purposes, and stock for exhibition, there is more demand for the popular varieties than those that are not so popular.

While many contend that the first thing to do is to build and properly equip quarters for fowls or chicks, it is true that there is no real poultry keeping or poultry breeding until one possesses the chicks or fowls. Many a poultry breeder who now occupies a prominent position in the poultry world started by buying a setting of eggs at a time when he possessed no more equipment than a sitting hen and a box in which to make

a nest. If the start is made by purchasing eggs, the buildings and equipment can be built as requirements demand.

Quality, Health and Vigor.—When starting in this way, the first thing to do is to select the breeder from whom the eggs are to be bought. As distance is no bar, if eggs are packed and handled properly, the main point to be considered is the quality of the stock that the breeder can and will sell. When referring to quality, we mean how closely the stock approximates the requirements of the American Standard of Perfection and described, so far as they affect each variety of Wyandottes, in this book; and also, whether the same stock possesses the health and vitality which is so necessary for success. These things are of equal importance, because one's success as a breeder of standard-bred fowls depends on his having stock good enough to command good prices, and it also depends on his having stock with the health and strength which will make it productive, not only of good color, but of plenty of eggs and meat. It should be particularly noted that it is very difficult to produce the quality of stock in any variety of Wyandottes which will sell for high prices from any except a line, or family, of healthy fowls.

Buy of a Specialist.—It is very satisfactory to see the stock from which one buys eggs if it is convenient to do so, but almost all of the buying of eggs is done by mail and breeders with reputations to sustain can be depended on to deal justly with those who send to them for eggs for hatching. It is always best to buy of a breeder who has a good reputation, because it is difficult to build up such a reputation except by breeding good stock and giving good value when filling orders. Almost invariably the specialist is the best one to buy from, for the specialist has more and better stock of his breed or variety than one who attempts to breed or handle and sell a great many different varieties. This is not intended to cast reflections on the reputable and successful breeder who handles two, three, or even half a dozen varieties and who has succeeded with all of them. Our readers will understand, however, why it is impossible for any man, or associated group of men, to successfully breed, raise and sell high quality stock of many different varieties.

Prices of Hatching Eggs.—Prices should be made a minor consideration. The main point is to get good eggs from good stock and while a few dollars more in the price of the eggs amounts to but little, the difference in the value of the chickens

hatched will amount to considerable as the stock grows up and develops, and is in turn bred from to build up the flock. Poor eggs, or even good eggs from poor or ordinary stock, are expensive at any price, because they make it impossible for the breeder to progress as he must, in order to be successful. In many cases, buying eggs proves a very inexpensive method of getting some of the finest chicks. It frequently happens that a setting of eggs sold for five, ten, or perhaps, in extreme cases, twenty-five dollars produces a single bird which is worth many times the original cost of the eggs. The writer recalls cases in which settings of purchased eggs produced first prize winners at several fairly prominent poultry shows.

Breeding Stock.—To start with, the purchase of breeding stock requires more capital if the stock is first class, but on the other hand a good trio or pen will supply several settings of eggs. There is, moreover, a certain satisfaction in possessing the fowls and considerable pleasure in feeding and caring for them. When adopting this method of getting a start, it is best to buy mature specimens, or at least those which are nearly mature, in the case of young stock. Quarters and equipment must be provided before the fowls arrive. It is just as important to select the variety which appeals most to the purchaser when buying stock as when buying eggs, and it is also just as important to buy from a breeder who has a good reputation for the quality of his stock and whose business has developed to the point where one is justified in believing that it is founded on honesty in his dealings. While this may not be as important when the experienced poultry breeder is purchasing, it is something that the beginner should not overlook.

Here again, the quality of the stock individually and the ability of the family, or line, from which it comes to reproduce its good qualities of shape and color as well as its strength and vitality, are important matters to consider. Inasmuch as the success of a reputable breeder depends considerably on his ability to build up a strain, the individuals of which will breed true to character, we find here another reason for patronizing a man with an established reputation. As such a breeder knows the parentage of the members of his flock, and also how to mate each individual member for the best results, a faculty which is founded on his knowledge of the breeding tendencies of his line, it is always best to have the breeder mate the fowls which the novice purchases. If this is done, the inex-

perienced beginner is relieved of one of the most trying responsibilities of his first season; and if he takes care of his breeders properly and rears the chicks with such good judgment that they grow and develop well, he may be sure of good results the first season. Whether it is best to buy young stock, if it is mature enough to show its quality, or old stock, or a part of each, is less important than whether one gets the right quality. Pens made up of well matured stock hatched the previous spring are often as healthy, as strong, and produce as good results as old birds. Yet such birds are, of course, untried and just what they will produce can not be foretold, whereas the older birds can sometimes be bought with an exact knowledge of what they produced the previous season and what they may be expected to produce in the season to come. While it is sometimes advised and occasionally advisable to mate cocks with pullets and cockerels with hens, there is no well defined rule which must be followed calling for such matings, and no preponderant proof that such matings are best.

If only a certain amount of money is to be spent, it is better to buy a few good birds than many poor ones, or even an ordinary number of birds of mediocre quality. It should be remembered that the stock bought at the beginning is to be the foundation of the flock, and the better the quality of the foundation stock, the faster the value of the flock will increase as its numbers become greater. It may also be remembered safely, when Wyandottes are being considered, that beauty and utility may be found in the same birds. There is no reason why any variety of Wyandottes can not be doubly valuable because it meets the requirements of the Standard of Perfection in shape and color, and at the same time produces eggs in goodly numbers and meat in satisfactory quantity and quality; in fact, there is every reason why these qualities should be found in the same specimens.

When to Start.—When the start is made with eggs, it must be done in the spring or early summer, that is, in March, April, May or the first part of June. Much depends on the use the beginner intends to make of the chicks that are to be hatched. If Wyandottes are wanted for the early fall shows, they should be hatched in March or the first half of April; if to be shown at the winter shows, May is early enough to get them out, and at the late winter shows, those hatched in the first fifteen days in June are frequently among the winners. It is

a fact that the best results are usually obtained when the eggs are bought after the breeding stock has had a chance to get outdoors and exercise in the open air, because chicks from such eggs come out at the time Nature intended they should and when they have the fresh, green, warm earth to run on, and all Nature is favorable to them. For this reason, it is best to defer the purchase of the eggs which are to produce next season's breeders until the latter part of April or the first part of May in northern latitudes, and hatch as soon as the grass begins to get green in southern latitudes.

The average beginner buys stock when his interest is highest, that is, generally during the show season, immediately after the show season, or directly preceding the opening of the breeding season, which begins about March first. At this time of the year prices of breeding stock are generally at the highest point because the poultryman has been to the expense of keeping it through the winter and because there is more demand for it. There is an advantage in buying at this time because the stock is usually in good condition for breeding, if supplied by a successful breeder, and the beginner can go right to work increasing his flock. Again he secures his stock in time to hatch chicks early in the season.

One of the best times to buy old stock is in the summer, when breeders are offering lower prices on the stock which they used the season before, and which they do not require for the season following. Young stock can be bought most reasonably in the fall, at about the time when the breeder must put it in winter quarters; but it should not be bought at this time unless it is sufficiently developed to show its quality. An excellent opportunity is sometimes offered to purchase fowls from mated pens, or to purchase entire pens in the late spring after the breeder has secured a certain number of eggs from them, and while there is still time for the new owner to raise a nice flock of chicks. There is no best time to start with the purchase of the stock. That depends altogether upon conditions. (H. A. N.)

CHAPTER II.

A BACK YARD FLOCK.

THERE are interesting possibilities connected with keeping a breeding pen in the back yard, or, if the back yard is big enough, keeping two breeding pens or perhaps more. Limited room is no bar to success if the poultry keeper does his part. The smaller the area to be devoted to a flock of fowls, the more care that flock needs, for the things that the fowls could do for themselves if they had a wide range must be done for them by the owner when they are confined within narrow limits. Naturally, none but standard-bred flocks should be kept, for these not only can be made profitable for eggs and meat, but there may be an added profit from the sale of eggs for hatching and stock for breeding and exhibition, if the breeder has the inclination and ability to breed high class stock. Some of the winners in our largest shows are from flocks that are kept in back yards, where there is room for only a small house and a small yard. If it happens that an owner can place his chicks on a farm where they will receive good care and where they can have the advantage of free range during their growth, he can raise more chicks, and in many cases better chicks, than if obliged to do all the rearing in his small back yard.

Advantages—Poultry Keeping Brings Health.—Back yard poultry keeping is not only capable of making good profits, but it offers recreation of the most healthful kind. Many a man or woman has found improved health by spending, every day, the time needed to care for one of these small flocks, because in doing so that man or woman was compelled to take outdoor exercise.

The boys and girls can frequently be interested in the back yard flock and thereby be induced to spend more time at home in a useful pursuit than they otherwise would. Instances are known where boys and girls have made the profit from a small flock the nucleus of a splendid bank account, which afforded them the means of obtaining an advanced education or a start in business life.

Feeding.—The back yard poultry breeder has one decided advantage. He has enough table and kitchen waste to make up perhaps half the ration for his flock, which reduces the cost of feeding his fowls and adds to his profits. These table and kitchen scraps can be mixed with a little corn meal and bran and that part of one ration, therefore, costs but little. If preferred, these scraps can be fed separately in a trough, for a lunch at midday. Usually, however, there is more of this material, which is usually excellent for the purpose, than can be fed for lunch only. (H. A. N.)

A Poultry House, after the Maine Model, at University Farm, St. Paul, Minn. The cut shows the curtains open (left) for a mild winter day and closed (right) for severe winter weather.

CHAPTER III.

HOUSING THE FLOCK.

HOUSING is one of the most important items in poultry keeping. A flock that is not well housed is not comfortable and a flock that is not comfortable is not healthy, profitable nor satisfactory to care for. It is a mistake to expect the same type of house to prove satisfactory under all conditions. Houses that seem to meet the requirement when placed in sheltered locations fail utterly when exposed to the cold winds. Houses that are used in the northern parts of the country must obviously be more warmly built, and are, therefore, more expensive than those used in the South where the winters are mild.

Wyandottes have rugged constitutions and do not require particularly warm quarters, but they must be well protected from the elements and at the same time a reasonable provision must be made for fresh air and sunlight. The fact that they will stand extreme temperatures, when healthy and vigorous, without apparent suffering, is no contradiction of the statement that, if part of their energy and heat is used to combat extreme cold, that same energy and heat can not be used to produce eggs or meat. It is best to keep the fowls comfortable.

Open Front Houses.—What is known as the open front house, that is, the house with the north, east and west sides, as well as the roof, tightly and warmly built and the south side entirely open, can be used satisfactorily in warm and mild climates and sometimes proves satisfactory in sheltered locations in all except the coldest parts of the United States and Canada.

Warm Houses.—In most cases, however, poultry keeping in the northern part of this country calls for houses which can be closed up quite tightly during severely cold nights, and which may be opened sufficiently to let in a plentiful supply of fresh air during the daytime. It will be plain to all that in order to properly protect the fowls and conserve their heat and energy, they must have more protection in cold weather than in warm weather, and that the protection afforded must

be at all times in proportion to the severity of the weather; that is, houses must be quite open in warm weather, partly closed in moderately cold weather, and almost entirely closed in very cold weather.

The house must be constructed in such a way that the cold can not penetrate it readily, yet the sun can dry it and warm the walls during the bright days, as the sun is the cheapest heating and drying agent that we have.

Houses for Warm Climates.—In parts of the country where extremely cold weather is unknown and in parts even farther south where only moderately cold weather is experienced, buildings which are very simply and thinly built, open on one side and with conveniences for letting in air through one or more of the other three sides, may be constructed.

Simple Construction Best.—The poultry keeper who has at his disposal the rear of a small city lot, or the village poultryman who has a little larger space, will find the simplest house the best in most cases, and also the least expensive to construct. Of all buildings, the shed roof style, with the front about seven or eight feet high and the back about five to six feet high, is the cheapest to build and the one most commonly used. It can be built any width up to sixteen feet and any length desired. It should face south and have one full size upper and lower sash window, hung preferably on weights and pulleys, like the windows in a dwelling, for every eight feet in length, if it is more than ten feet wide, or one window for each twelve feet in length, if it is less than ten feet wide. A house less than twelve feet wide is more expensive to build, in proportion to its capacity, and is not advised except in cases where a narrower house must be used for some reason.

Walls and Roofs.—In the cold parts of the country, the walls and roof of such a building may be built of tongued and grooved boards nailed to a frame work of two-by-fours, and covered with two or three thicknesses of tar paper, then one thickness of any good brand of prepared roofing. This construction, though simple and cheap, makes a wall that is reasonably warm, because it keeps out the cold and is warmed up and dried out quickly when the sun shines on it. Shingles, clapboards, or any kind of siding on the outside makes a better appearing structure and a warm one, but more expensive. In warmer territories, only a single thickness of boards for the walls, with the same and tarred paper or

prepared roofing on the roof to make it water-tight, is required. A handsomer finish can also be applied to the same construction.

Ventilation.—This is an important matter, because it is known that the presence of moisture impairs the health of fowls. Fowls throw off quantities of moisture when exhaling and this moisture, together with that which originates from any other source, must be carried out of the building by means of ventilation or currents of air. These air currents, if rapid, cause drafts and drafts in the house endanger the health of the fowls. To prevent these drafts the air must be allowed to enter through the one side only by opening the windows, much or little, according to the temperature and the force of the incoming wind. In some localities, cloth covered frames are placed in openings between the windows and high enough up in the side of the house so that when these frames, which should be hinged at the top, are opened the drafts can

FARM POULTRY HOUSE, MINNESOTA MODEL.

Windows hung on weights and pulleys serve as ventilators when required. Openings above windows fitted with two sets of doors, each of which can be closed or open, provide constant ventilation.

not strike the fowls on the floor. These cloth covered frames permit the air to enter and leave the house slowly and provide ventilation when the windows are closed to keep out the wind. In higher houses than we have described, a loft is built in the top of the structure by placing boards an inch a part, high enough to clear the head of the caretaker and covered with a thick bed of straw or hay. Openings are made in the walls of the house above this straw or hay and the air enters and escapes from the house by slowly passing up and down through this material.

No system of flues and pipes will work satisfactorily unless artificial heat is applied to create a draft in them. In warm parts of the country where the buildings have one side entirely open, except perhaps for a wire screen to keep the hens in and other animals out, the ventilation takes care of itself, though frequently it is necessary to have open spaces in other sides of the house to keep it comfortable in the hottest weather.

Other types of poultry buildings, including those with the roof divided into two equal pitches and those with the roof divided into two unequal pitches, can readily be adapted to suit the back yard poultry keeper's needs, if they seem to better suit his convenience and fancy.

Whatever the type of the house, it should be so constructed that it will be dry. If it is on a damp location, or one which is not well drained and likely to be damp at any season of the year, a floor is necessary. If, however, it is on a dry location, the floor may be made by filling in with gravel and sand to a height a few inches above the ground level. The last named method makes the most healthful and the warmest floor.

Interior Equipment.—The equipment of the back yard poultry keeper's hen house should be very simple. The roost platform should be placed two feet above the floor, so that the hens can use the floor space under it, against the north wall of the house and the roosts should be set from six to eight inches above the platform. These roosts may be made of small dimension stuff that is not more than two inches wide on its upper surface, with the corners rounded, or of round pieces not more than three inches in diameter. It should be remembered that when the hen sits down on the roost her toes automatically curl and for that reason the upper surface of the roost must be rounded. If more than one roost is used,

all should be on the same level and far enough apart so that the fowls will not be crowded when the roosts are full.

Nests may be made of ordinary boxes, large enough so that a hen can sit down in them comfortably, and hung on the walls, or they may be made to look better by any special construction and the use of good lumber. Grit and shell boxes, feed hoppers, etc., may be hung on the walls at convenient places and high enough so that the dirt will not be scratched into them by the fowls. (H. A. N.)

CHAPTER IV.

SANITATION.

THE average poultry-keeper pays too little attention to the practice of the principles of sanitation, though it is of the greatest importance that these principles should be thoroughly applied in both the poultry houses and yards, because sanitary measures must be practiced assiduously in order to maintain normal health among the fowls.

Every condition that promotes the possibility of disease may be classed as insanitary and the elimination of such conditions must be accomplished as quickly after discovery as possible, in order that the flock may be kept in perfect health, without which the best results in any of the different branches of poultry culture, as the production and hatchability of eggs, and the livability and growth of young stock, can not be obtained.

Cleanliness.—This is the most potent agency in promoting sanitation. The vital importance of cleanliness must be accepted as a first principle in the successful management of a poultry establishment, large or small. Manifestly, it is more difficult and laborious to maintain cleanliness when large numbers of fowls or chicks are kept in small houses and runs, than when the reverse is the practice. But, in that case, the necessity is in a proportionate measure more urgent, and in all cases cleanliness, not as a theory but as a condition, must be established and maintained in all parts of the house, including floors, walls, roosts, roost platforms and nests and, particularly, in all watering and feeding devices. Cleanliness prevents disease by removing the germs of disease and the accumulation of filth which is conducive to their increase and development.

The Use of Disinfectants.—The intelligent use of disinfectants is also effective as a method of destroying germs of disease. There are numbers of these that can be relied upon to do the work desired if the directions furnished are followed, but while they serve their purpose nicely, it should be understood that the necessity for their use is reduced or increased as cleanliness is practiced or neglected. When a tolerable degree of cleanliness is constantly maintained, the frequent use of disinfectants will not be necessary, except when disease is prevalent, or unless it is to destroy or prevent the intrusion of lice or mites. Cleanliness of all parts of the house to a degree that insures against ordinary dangers of disease can be acquired by the common mechanical process of cleaning, except in cases of feeding and drinking appliances, which should be scalded or washed in disinfectants occasionally.

Roost platforms should be cleaned at least twice a week, or daily if convenient, and with the roosts should be treated copiously with a liquid disinfectant which is an insecticide as well as a germicide once a month, and at least twice as often during hot weather. The floor litter should be removed and renewed as often as necessary, which is readily determined by inspection.

Care of Grounds.—The sanitation of the small poultry yard is often a serious problem. When the fowls are kept on the same ground for a considerable length of time, disease germs multiply so rapidly in the filth which accumulates, that the ground becomes so contaminated as to become a menace to health. Where the yards are exceptionally small, poultry-keepers sometimes remove the surface of the soil for fertilizer and replace it with new earth. It is also a common practice to spade up the earth, turning the surface under and bringing fresh soil to the top; but even when this is done, the ground sooner or later becomes saturated with filth which nurtures germs of disease.

Fortunately, Nature has provided a way for cleansing filthy ground by means of vegetable growth which may be of service to the poultry-keeper. Wherever possible the back yard poultry-keeper, or any poultry-keeper who is obliged to use a small area of ground, should take advantage of this fact by dividing his yards, so that while the fowls are running in one, some quick-growing, succulent vegetation, which is at the same time purifying the soil and supplying green food, is being produced in the other. As soon as this vegetation in the second yard

has obtained a good start, that yard may again be used by the fowls, and greens planted in the yard first used. By this process the ground can be kept in good condition and a certain amount of green food constantly furnished the fowls in season. (H. A. N.)

CHAPTER V.

FEEDING THE BREEDING FLOCK.

FEEDING the fowls from which the eggs for hatching will be secured is a very important matter. Sometimes care and feed which will secure a good yield will not produce eggs that will hatch well, nor which will hatch strong, healthy chicks. When feeding for high production alone, the main idea is to feed the hen a ration that will enable her to produce the most eggs in a given time, and that very often overworks her so that her strength and vitality are reduced to such an extent that she will seldom lay eggs that are suitable for incubation. To produce a strong chick, the egg must not only be perfect so far as table qualities are concerned, but must also possess a strong, vigorous life germ and the proper life-giving material to develop this germ. It will be obvious that both the male and females in the breeding pen must be in good physical condition, or the qualities desired, hatchability of the eggs and vitality of the chicks hatched, will be lacking in the egg produced.

In accordance with Nature's plan, the hen usually waits until warm weather comes and the ground is covered with green grass before eggs are laid and incubated. She then finds health-giving nourishment in form of fresh vegetable matter and has an invigorating atmosphere in which to exercise and build up her powers of reproduction to a high degree —and the same natural conditions favor maximum vitality in the male. Conditions are very different in most poultry yards because the poultry-keeper has found it necessary to hatch earlier than the natural season in order to get the most profit from the chicks and because, in the case of the back yard poultry-keeper in particular, he has not space enough for much grass to grow or to give extended range. The breeding season comes close after the severe winter weather in the northern states, and although it comes earlier in the South, the conditions are approximately the same as related.

It often happens that it is necessary to use the hens for breeding that have been fed for egg production during the winter. The vitality of these hens may have been somewhat reduced by heavy laying. This condition must be met by building up and maintaining the strength of the birds. To do this the methods of management must be arranged and foods selected so as to approach as closely as possible the methods and foods which Nature uses and supplies so successfully later in the season.

A Variety of Hard Grains.—A variety of feed is very important, for it is useless to expect the fowls to obtain from any one or two kinds the many different elements which are needed to build up and strengthen the different parts of the body and to produce the egg as well. A variety of the ordinary grains, as for instance, corn, wheat, and oats, usually supplies the needs as far as grain is concerned.

The feeding of these grains also furnishes an opportunity to compel hens which are in small quarters to take exercise which they naturally get by ranging over the fields in warm weather. The floor should always be covered with a litter of straw, leaves, coarse hay, corn stalks or shavings, and all the whole and cracked grain buried in this litter so that the fowls will scratch vigorously to get it and, by exercising their muscles, increase the flow of blood in their arteries and veins, thus better nourish the different parts of the body. While the fowls are exercising, the windows should be opened sufficiently to allow them to breathe the pure air while at work. In extremely cold weather, a very small opening is all that is necessary to keep the air dry and pure.

Ground Grains or Mashes.—In addition to the hard grain, which is fed as previously directed, a mash, either dry or damp, is usually supplied. Dry mashes are fed in hoppers or boxes which are open to the fowls all or part of the day. Damp mashes are made by mixing the same ingredients which make up the dry mashes with milk or water and are fed in troughs once a day, usually. After each meal the troughs are cleaned and removed. If damp mashes are allowed to remain before the fowls very long, they become sour. When in this condition mashes injure the digestive organs and at the same time are likely to reduce the appetites of the fowls, and a good appetite is very necessary to a healthy fowl.

Animal Foods.—In addition to the ground hard grains, meat-foods and greens must be supplied. The most common

methods of supplying animal food are by feeding beef-scraps or the by-products of milk, though usually it is best to furnish scraps and bone-meal in addition to the milk. With that variety the results are likely to be more satisfactory. Milk can be furnished as a drink, if water is given in addition, or may be mixed in the mash and it may be given sweet, clabbered, whole or skimmed.

Green Foods.—When fowls are confined, green food of some sort to take the place of the fresh green grass and tender young shoots, which the hen gets by ranging freely in the fields in warm weather, must also be supplied. In the early part of the breeding season when the fowls are to be put in condition for breeding the poultryman must depend entirely on mangels, beets, cabbages, sprouted oats and green stuff of that kind. Green-cured clover and alfalfa, ground finely or cut in short lengths, are often added to the damp mash or moistened and fed separately, furnishing green food to some extent, but it does not take the place of the fresh succulence of the greener foods. It will not do to feed mouldy or spoiled vegetables of any kind, and when sprouted oats are used the poultryman should be particularly careful that they do not get musty or mouldy while sprouting.

Too Fattening Rations.—If the fowls are inclined to get too heavy or too fat, the more fattening foods of the ration, like corn and cornmeal, should be reduced in quantity and the muscle-forming elements like bran, clover, alfalfa and meat foods should be increased. This answers better than to give less food if the fowls are eating well, because less food is likely to reduce their strength.

Outdoor Exercise.—When the weather is warm enough to permit, some breeders allow their fowls to get a part of their exercise by scratching in straw which is placed on the ground in front of the house. In some cases the snow is shoveled away for that purpose. (H. A. N.)

CHAPTER VI.

THE HEALTH OF THE BREEDING FLOCK IN CONFINEMENT.

BREEDING fowls that are kept in houses or houses and small yards have less opportunity to keep in vigorous health than breeding stock which is allowed free range when the weather permits, or has the run of extensive yards. As we have before mentioned, the only way to secure and maintain health and vigor in a breeding flock is to provide as nearly as possible the things the flock would secure if it were running wild in the natural breeding season.

Healthy Stock.—In the first place, the stock must be healthy to start with. It is a waste of time and money to attempt to breed health and strength into a flock in confinement. With healthy stock to start with and proper surroundings, proper care and proper feed, that health may be maintained to a satisfactory degree; but unless surroundings, feed and care are as they should be, the fowls will weaken sooner or later, and succeeding generations will have less and less vigor as time goes on.

The House.—A healthful house is of the first importance and a house which furnishes the requirements for health is likewise a comfortable house, and a comfortable house is the most profitable house to use. A sufficient amount of ventilation to keep the air reasonably pure, protection from drafts and severe cold, provision for plenty of sunlight in every part of the house, at least during the part of the day, are the principal requirements. Under such conditions fowls that are properly fed and cared for will maintain their vitality.

Feeding.—Good feeding is another requisite and good feeding must include sufficient variety of the right kinds of food, comprising whole and cracked grains, ground grains, meat food, green food, grit, charcoal and oyster shells. The grain must be fed in deep litter to encourage exercise, for without exercise no fowls remain healthy. Feeding at regular hours helps to keep the digestive organs of the fowls in good condition and hens that have good digestion are likely to have

good health, at least, so far as anything affected by food is concerned.

Management.—Good care is of the utmost importance, and good care includes not only careful methods of supplying feed but careful methods of adjusting ventilation, cleaning and disinfecting the house, etc. Closing the house up too tightly in moderate weather and allowing it to remain too open in severe weather is a prolific source of trouble; colds develop and colds weaken the bird's power of resistance to other diseases. Drafts allowed to blow on the fowls day or night, especially at night when they are inactive on the roosts, will be likely to cause colds in the flock. When kept upon filthy or damp floors or litter, fowls are uncomfortable and soon get into such condition that they are easily affected by any kind of disease germs.

Unclean nests not only injure the eggs laid there but menace the health of the hens. Filthy dropping boards furnish a place for the breeding of germs of disease and vermin. All these fittings should be kept clean and should be disinfected occasionally. Vermin must not be allowed to get a foothold. It not only makes the fowls uncomfortable, but actually tortures them in some cases and by so doing reduces their strength and vitality.

New Blood.—When adding new blood to the stock, extreme care should be taken to obtain the most vigorous and healthy birds, for anything else not only fails to assist in maintaining the health of the flock, but it reduces the necessary vitality. (H. A. N.)

WHITE WYANDOTTE CHICKS, TWO DAYS OLD.

Little chicks of this variety vary in color from white to a smoky gray, as shown above.

SECTION II.

THE YOUNG STOCK.

CHAPTER I.

HATCHING AND BROODING.

IN MOST CASES the keeper of a back yard flock depends on the old hen that can cover thirteen to fifteen eggs to do the hatching and she is as often entrusted with the business of brooding the chicks. If the hens begin laying in the fall or early winter, there are sure to be some broody ones among any of the varieties of Wyandottes by March first, which is as early as most poultry-keepers care to set hens. If the hens do not become broody early enough, or if the poultry-keeper prefers to break up those which do become broody in order to get them to laying again, and use their eggs for hatching, a small incubator is a practical necessity. All the high-grade makes will give satisfactory results if properly handled and supplied with good eggs. Furthermore, they are so perfected that they require but little care and are safe and also easy to handle. Inasmuch as complete instructions for operating are supplied with each machine, it is not necessary to describe these methods in this book.

The Sitting Hen's Nest.—Setting a hen is a more important and exacting matter than most people think. Many hatches are spoiled because the nests are not properly made. It is unreasonable to expect a hen to distribute her warmth over a large area and still have enough to incubate the eggs, particularly in cold weather. A warm nest is absolutely necessary and that means that it must be made, or at least lined, with a fine material, such as fine, soft hay and be built in a good warm box. The sides of the box, however, should not be so high that the hen will land heavily on the eggs when getting down into the nest, or one side must be cut down to allow her to enter easily. At the same time the box must be deep enough to extend well up around the side of the hen's body and of the right size so that the hen will fit snugly to the nest, so that the heat of her body may be adequate for

incubation, even in cold weather. The bottom of the nest should be slightly lower in the center so that the eggs will tend to keep closely together, but if the nest is too deep in the center, the eggs are more apt to be crushed or broken. Just enough gradual drop is necessary to keep the eggs under the hen and in the center of the nest. Less chicks are crushed during hatching in a nest that is flat or almost flat, therefore the nest may be flattened by removing the material on the outside when hatching time arrives, so that the eggs on the outside will not exert too much pressure on the newly hatched chicks, or on the chicks that are partly out of the shell and are located in the center of the nest.

Care During the Sitting Period.—Vermin must not be allowed to exist on a sitting hen, and she should have her plumage treated with lice killing powder just before she is set, and again every six days, the last time at least twenty-four hours before the chicks are expected to break the shell. Usually the hen will do well while sitting if fed on a variety of hard grains, but many poultry-keepers depend entirely on corn, and we have had good results by feeding that grain alone during the incubating period, perhaps because corn is a heating food, and the hen requires considerable of that kind of nourishment to keep up the incubating temperature. To assist digestion a supply of grit and charcoal should always be ready when the hen comes off the nest, as well as plenty of fresh, clean water. The hen should leave the nest once a day, and usually the morning is the best time. The hen knows when feeding times come and is nervous and restless if it is allowed to pass without feed being given her. This results in a complete or partial loss of the eggs. Hence, punctuality and regularity in feeding and care are vitally important.

Care at Hatching Period.—When the chicks are hatching, it is well to remove the empty shells so that they will not cap the unhatched eggs and perhaps prevent the chicks from getting out. When the hatch is complete the hen should be encouraged to stay on the nest for twenty-four hours, after she has been taken off, fed, and returned. In cold weather, the chicks should be covered with a warm cloth while the mother hen is being fed.

Care of Baby Chicks.—When they are from twenty-four to thirty-six hours old, the hen and brood should be removed to the brood coop and it is best to darken the coop at intervals

during the first day so that the hen will brood the chicks frequently and conserve their strength. Unless the weather is warm the brood coop should not be placed outdoors, but should be given a place in a well lighted building which is clean and which has been thoroughly disinfected if necessary. In warm weather the little chicks can be moved to a coop on the warm ground immediately, and should always be given fresh green grassy runs. They should not be put where older broods or fowls have been running earlier in the season.

Feeding the Baby Chick.—The first feed may be stale but not musty or mouldy bread, moistened with milk and then squeezed quite dry, with a little grit and a little finely granulated charcoal sprinkled on it; johnny cake baked hard, crumbled and fed dry; hard boiled egg chopped fine and mixed half and half with bread crumbs; steel cut oatmeal, or any of the numerous, satisfactory rations given to little chicks by successful poultry-keepers. Sometimes the chicks are started from the very first on prepared chick feeds, made from finely

NESTS FOR SETTING HENS, BUILT IN PAIRS.

Placed on the ground or floor in any building if secluded. By this arrangement the hens may be fastened on and fed at regular intervals or allowed to come off and go on at will.

cracked grains, and when they can have plenty of outdoor exercise they will do well on such a ration. They should be fed five times a day at the start. Milk is especially good for little chicks, but plenty of clean water must also be provided, for milk will not take its place. A little lettuce or a tender cabbage leaf may be given each day from the first. No better green food can be supplied young chicks than short, tender grass on the sod.

Cleanliness, plenty of pure air, warmth, protection from chilling winds, and lots of sunlight are essential to the well being of the little chicks.

The Artificial Method.—If incubators are used, the chicks should remain in the incubator until they are from twenty-four to thirty-six hours old. They should then be removed to the brooder, which should occupy a well lighted, clean room where there is plenty of sun. The hover should previously have been warmed to a temperature of about ninety degrees. After the chicks are in, their animal heat will raise the temperature from ninety to about ninety-five degrees.

It is advisable to keep the youngsters under the hover most of the time during the first twenty-four hours, letting them out at frequent intervals to become accustomed to the brooder, and to drink a little water and eat a little food. After the first day they may be allowed to go in and out at will, unless they are found to crowd in the corners, when they must be returned to the hover until warm again, for crowding in outside corners always means that they are chilly. (H. A. N.)

WHITE WYANDOTTE CHICKS, SHOWING GRAY COLOR.

The little chicks which show considerable gray color when young often make the whitest fowls when mature.

CHAPTER II.

CARE OF THE GROWING STOCK.

AFTER the little chicks are well started on life's journey, under the old hen or in the brooder, it is necessary to see that they have proper care throughout the growing period. A setback at any time in their growth can never be entirely overcome and the more severe the setback, the greater the harm. The brood should be kept with the hen or in the brooder as long as artificial heat is necessary, which is until they are well covered with their chicken feathers and sometimes longer, depending on the season of the year. They may, of course, remain in the same quarters if the weather continues cold and be allowed to run out doors only when conditions are favorable. Unless the accommodations are ample, they are likely to soon outgrow them and more room must be furnished. A brood mothered by a hen can sometimes be kept in a good sized brood coop for a short time after the hen weans them, but they soon fill a coop of ordinary size so completely that they are crowded at night. Before that occurs they should be removed to what are generally known as roosting coops.

Roosting Coops.—These roosting coops are of various sizes, but a common size is six feet long, three feet wide, three feet high in front and two feet high at the rear. If the chicks use these little buildings during the heat of the summer, it is customary to make the front entirely of wire netting or slats, so that the air can circulate freely. To provide protection against the storms and occasional cool weather, especially in the fall, a burlap or cotton cloth curtain is often arranged so that it can be rolled or dropped down to cover the open side, in this way shutting out strong winds and driving rains. This curtain should not be kept down except when necessary for the before mentioned reasons, because at any other time it confines the air too much and makes it too warm for the youngsters.

When the brooder chicks are ready to be put out on the range, that is, when they no longer need the protection of the brooder or colony house in which the brooder is operated,

they are usually put into the roosting coops which are distributed over the range. The same procedure is followed in the case of hen-brooded chicks.

Rearing in Restricted Quarters.—The back yard poultry keeper faces a serious situation when attempting to rear chicks, yet good results can be obtained on a small area. If one has no more room than is necessary for the fowls, it is useless to try to raise chicks in his back yard, because chicks cannot occupy the same ground as the fowls and do well; nor can they occupy ground that has been fouled to any extent. Under such conditions, arrangements must be made to have the chicks grown away from home, and care should be taken to get them into the right hands and to be sure that they have suitable quarters and proper feed. If the home quarters are of a fair size, it is possible to grow very good chickens by giving them extra care. The same method of cooping should be followed as if they were on range and the outdoor runs should be frequently spaded over. The location of the coop and yard should be changed every few days if possible, and some small grain which sprouts quickly planted in each spot as soon as it is vacated. As the chick can not develop muscle and will not be healthy or strong without exercise, they must be made to scratch vigorously in litter for the dry grain part of their ration.

Cleanliness is absolutely necessary in all cases, and the coop must be cleaned at frequent intervals and occasionally disinfected, especially the floor. If, as the chicks grow, they fill the coop to a point where it becomes crowded, the flocks must be divided, for each chick should have ample room to sit on the floor comfortably at night. When the youngsters are half-grown they may be given roosts placed lengthwise of the coop, two being as many as can be used satisfactorily in a coop of the dimensions we have mentioned. These roosts should be of good size, but round enough on top so that the toes of the chicks can curl around them, as Nature intended, when the chicks sit down.

Lice will injure or even destroy a flock of chicks if given any lee-way, and liquid mite killer should be used on the floors of the coops and on the roosts when the roosts are put in. The chicks should be dusted thoroughly with a lice killing powder, if any lice are discovered on them, and one should search industriously for vermin at frequent intervals. (H. A. N.)

CHAPTER III.

FEEDING FOR GROWTH.

THERE are various methods of feeding growing chicks, many of which are entirely satisfactory. The test is whether or not they produce the desired results. A great many different food elements are required to nourish properly the different parts of the chick's body, and unless food is given in reasonable variety the chick usually cannot obtain, from what is given it, enough of all the elements required to make satisfactory growth. Obviously, if too much fat forming material is given and too little of the material that makes the lean meat and muscle, the chick can not develop as it should. A chick on free range can sometimes overcome mistakes in feeding by collecting from the range the different food elements which it requires but does not obtain from the food provided.

In the back yard poultry keepers' little flock of young, this can not be done, and the owner must be careful to furnish a reasonably well balanced ration.

A good ration for chicks from two weeks to one month old is as follows:

A mash consisting of three parts each (by weight) of wheat bran and cornmeal, one part wheat middlings and one part beef scraps, mixed dry and kept before them in hoppers; a mixture of three parts cracked wheat, two parts finely cracked corn and one part pinhead oatmeal, fed in a litter in order to compel them to scratch for it. During the second month of their lives, the same dry mash may be always available and a mixture of three parts wheat, two parts cracked corn and one part of hulled oats may be given for scratch feed. From the end of that time until they are grown they should have constantly before them in hoppers, a dry mixture consisting of three parts wheat bran, three parts wheat middlings, three parts cornmeal, and two parts beef scraps, and a scratch mixture of equal parts of wheat and cracked corn, if they are on free range. If not on free range, the scratch mixture should be given in a litter, to induce exercise, twice a day. The same mash may be mixed with water, or sweet or sour milk, and fed once a day, in addition, to hasten development.

Very simple rations sometimes prove quite effective when chicks are on free range. A hopper of beef scraps and a hopper of cracked corn constantly in reach is said to grow excellent chicks, the corn furnishing the heating and fattening part of the ration, and the beef scraps the material of which to make solid flesh. Of course, the chicks pick up the green stuff and other food on the range. We would not advise anyone to feed such a ration to chicks confined in yards, because, if there were no other arguments against it, it is plain that the chicks would soon tire of it.

Chicks in yards must always be furnished green stuff once each day, but none should be allowed to remain after they have satisfied their appetites, because it soon becomes unwholesome. Grit and charcoal should always be available and plenty of fresh water must be furnished. If milk can be given them to drink in addition to water, better growth will result. (H. A. N).

COLONY COOP FOR YOUNG CHICKS.

Design from Minnesota Agricultural College. Capacity three or four hens and 50 or 60 small chicks. Later twenty-four larger chicks. Front can be protected during stormy weather by bran sacks at either end.

PART SIX.

UTILITY FEATURES OF THE WYANDOTTES.

SECTION I. MARKET QUALITIES OF THE WYANDOTTES.

Chapter I. THE TERM "UTILITY" EXPLAINED.

Chapter II. THE WYANDOTTE AS A GENERAL PURPOSE FOWL.

Chapter III. THE WYANDOTTE AS A MARKET FOWL.

SECTION II. WYANDOTTES AS PROLIFIC EGG PRODUCERS.

Chapter I. WYANDOTTES FOR EGGS.

Chapter II. WYANDOTTES IN EGG LAYING CONTESTS.

SECTION I.

MARKET QUALITIES OF THE WYANDOTTES.

CHAPTER I.

THE TERM "UTILITY" EXPLAINED.

THE CHAPTER ON THE utility feature of the Wyandotte fowl may very well contain a definition of what is meant by the term "utility." It is so often misused that, far contrary to its real meaning, it has come to mean to many not much more than lack of Standard quality. This is due to the fact that it has become a custom among fanciers to sell or offer for sale all the stock that does not meet the requirements of the Standard of Perfection in a degree to meet the approval of those that buy it on that basis as "utility" stock, or eggs from such stock as "utility" eggs. In many cases, not only the quality but the vitality of such stock has become so inferior that the term has fallen into disrepute. "Utility-stock" now means to a great many who have perhaps suffered in their transactions along this line with unprincipled breeders and dealers, and we are thankful that it is usually the latter, simply something that is unfit to sell as Standard-bred stock. This application of the word is to be regretted as "Utility-stock" should be desirable stock that is useable for its purpose, and the word utility should be held to its original meaning when it applies either to breeding or to sales.

"Utility-stock" is that which yields a useful product. The utility products from poultry are two only, flesh and eggs. Stock that will produce progeny of a superior meat quality, or that grows and produces flesh more rapidly than does ordinary stock is entitled to the term "utility," and such stock does not discount itself or discredit the term.

"Utility-stock" should have utility quality, and should not be confused with Standard-bred specimens of poor quality. To be such is the result of accident very often. To improve any

quality in any stock, the most satisfactory results are obtained by selecting for that quality.

Standard-bred Fowls, Useful.—It is a noteworthy fact and the most convincing refutation to any imputation that Standard-bred poultry is ornamental rather than useful, that in the beginning all of our American breeds originated with men who were interested in poultry in a practical way and not as fanciers; consequently, these breeds took on at the start a practical rather than a fanciful aspect. Both aspects have been improved. That our American breeds, including all varieties of Wyandottes, have improved in appearance, everyone interested is aware, but that they have improved in usefulness and productiveness some may not be disposed to admit, yet all available records, both public and private, show such an enormous advance in these respects as to be almost incredible, not only to those skeptically inclined but to all, except the comparatively small number who because of business or other interests follow the results of such tests most closely.

It should not be concluded from the foregoing statement that fowls should be bred to improve in one particular alone; although, it often happens that a specimen of the most pronounced degree of excellency in a certain particular is often so deficient in other requirements that no one of good judgment would use it in a breeding capacity, and for that reason alone it often happens that we do not acquire one quality as rapidly or in as marked a degree as though we limited our selections for that one quality alone.

Yet rapid growth and laying qualities are very dependent upon health and vigor, and when selections for these qualities are the rule, more productive fowls are bred. (A. C. S.)

CHAPTER II.

THE WYANDOTTE AS A GENERAL PURPOSE FOWL.

A GENERAL purpose fowl, as the term is generally used, means a fowl which is good for all of the so-called practical or utility purposes. That is, a fowl that is satisfactory and profitable to keep for eggs and for meat on city back lots, village places and on farms; a fowl that is useful as a producer of eggs and flesh for use at home or to sell in the market, in large or small quantities.

All varieties of the Wyandotte have the same shape, size and weight, according to the requirements of the American Standard of Perfection, and this shape and size is unusually conducive to the successful and economical production of table poultry products. Its medium size, full, deep breast and well-rounded, full lines make it excellent for meat production and enable it to carry a large amount of edible flesh in proportion to its frame.

For broilers the Wyandotte has no superior, and this applies to all varieties, since all varieties have the same conformation. It grows quickly if from strong and vigorous parentage and when eight to twelve weeks old (the broiler age) it carries a nice amount of meat and attains good size. For the smaller, or "squab," broilers the Wyandotte is equally good, for at any time after it is large enough to eat it is well fleshed if properly fed and cared for. For the production of roasting chickens, weighing from four to five pounds each, it is excellent, and when allowed to attain maturity and is dressed and sold as a fowl the same plumpness recommends it to all consumers. In many markets medium sized fowls are preferred, especially when catering to the needs of small families.

The length and depth of body is sufficient to give the egg producing organs an opportunity to be profitably active when the proper food is provided. The Wyandotte will lay equally well when confined to a small house and yard on the city lot, when kept on the village half-acre and when on the broad range of the farm, provided reasonable care is taken to supply

the necessary feeds from which the fowl can obtain the elements necessary to make eggs.

In addition to their usefulness for market purposes, the attractive shape and beautiful color of each variety make them especially desirable to keep for pleasure, and when well-bred there is an added enjoyment to be obtained by showing them, for those who desire to do so, and an additional profit to be made by selling specimens for exhibition and breeding and eggs for hatching. (H. A. N.)

CHAPTER III.

THE WYANDOTTE AS A MARKET FOWL.

NO breed of fowls has ever been produced that has won more universal approval than the Wyandotte. The present practical age demands a bird that is reasonably early in maturing, and the market fowl of five or six pounds finds greater favor than one weighing eight or ten pounds. The Wyandotte, being cobby and full-breasted, makes a very neat, plump carcass, while its habit of growth is entirely unlike that of the other general purpose breeds. The Rock, Orpington and Rhode Island Red up to five months of age are growing a framework to be covered, as they mature, with meat. The Wyandotte grows flesh and bone at the same time and is always ready for market from broiler size to medium sized roaster. In fact, with proper feed and care there is never a time in the life of a Wyandotte, from six weeks of age to maturity, that it is not ready for the table.

Wyandotte chicks are very vigorous, active and stand forcing remarkably well. For the past fifteen years I have hatched, each year, over two thousand chicks in the months of January and February. My losses are remarkably small and although we force them for rapid growth, I can honestly say that in the last five years we have not lost a dozen chicks from leg weakness. They simply thrive under heavy feeding and this is a very important consideration in a broiler. They will weigh two pounds in eight to ten weeks without any trouble and when marketed they always bring the very highest price. In fact, I have never had any difficulty in getting from ten to twenty-five cents per pound above the market price for Wyandotte broilers because of their plump, attractive carcasses. From broiler size they develop rapidly and at every stage they are plump and meaty. The standard weight for Wyandotte cockerels is seven and one-half pounds and for Wyandotte pullets, five and one-half pounds. These weights have proved to be ideal from a utility standpoint and it is not difficult to bring them up to these weights, in from five to six months. This rapid growth and quick maturity place the Wyandotte in a

class by itself, because you can bring it up to the roaster stage in less time than any of the other market breeds, and the first birds on the market always bring the best prices.

Another consideration in a market fowl is the cost per pound to produce the finished carcass. Here again, the Wyandottee compares most favorably with other breeds. Being of a gentle, docile dispositon, on account of its Cochin ancestry, it stands confinement remarkkably well and thrives in very limited quarters. Then again, it is not a heavy feeder and from an economic standpoint this is most desirable. In fact, I think I am safe in saying that you can produce a pound of Wyandotte carcass with less feed than you can a pound of any of the other heavy breeds.

If you handle a young matured Wyandotte, you will find that the breast is not wedge shaped, but rounded. This is caused by the keel being fairly shallow and with both sides covered with layer after layer of meat.

The distinguishing characteristics of a Wyandotte are its rose comb and its typical shape. The most important feature of a typical-shaped Wyandotte is a full, well-rounded breast and this is a case where fancy and utility qualities harmonize, as they should.

When you examine the dressed carcass, you will find that the skin is smooth and flexible. This indicates that the meat is fine in texture. As a matter of fact, there is nothing finer and the flesh of the Wyandotte is juicy and delicious, fit for the table of an epicure.

Among the large poultry shows, Boston offers classes for dressed poultry. In fact, the beautiful exhibits of dressed fowls are a feature of this show and always attract great interest. For years Wayndottes have captured the Sweepstakes prize, proving conclusively their claim to be called the market fowl "par excellence." (J. S. M.)

SECTION II.

WYANDOTTES AS PROLIFIC EGG PRODUCERS

CHAPTER I.

WYANDOTTES FOR EGGS.

THE Wyandotte holds a unique position among the heavy breeds. It is really the only breed that has been able to dispute the supremacy of the White Leghorn and when you take into consideration the fact that the Wyandotte is a general purpose breed, and twice as large as the Leghorn, it makes it all the more wonderful. However, when we consider the ancestry of the Wyandotte we find that the Hamburg was largely used and many go so far as to say that the original Wyandotte was fully one-half Hamburg in origin and the other half principally Cochin and Brahma. At any rate this would account for the wonderful laying ability of the Wyandotte. The Hamburg was known as the "Dutch everlasting layer" and was a very persistent layer. True they laid an egg too small to find favor with the market poultry man, but they laid plenty of them to make up. The Cochin and the Dark Brahma are both splendid winter layers and by a blending of these three breeds, we have a new breed of medium size that is simply a phenomenal all-year layer.

My first experience with the Wyandotte took place over twenty years ago. A friend of mine had a pen of Golden Wyandottes and during the very cold winter of 1899 he was getting a wonderful egg yield. I naturally supposed he had a good comfortable pen and was giving them the very best of care. One day I went to see his birds and was amazed to find them housed in nothing more than an open shed and getting hard grain twice a day. This set me thinking, because he was getting far better results than I was getting from my Rock pullets, with double the care. The next season, I purchased several sittings of White Wyandotte eggs and the

chicks came out between the latter part of May and the middle of June. I had twenty Wyandotte pullets and also forty Rock pullets hatched in May. Both lots had equal care, but the Wyandotte pullets outlaid the Rock pullets, two to one. After a repetition of this the following winter, I decided that the Wyandotte was the fowl for me. Of course, it might be argued that this was an exceptional case and that the question of strain might largely account for the difference. At the same time, the laying contests held in America and also in other parts of the world, extending over many years, led us to conclude that the Wyandotte has no superior among the heavy breeds and when it comes to the White Leghorn, it is simply a matter of strain. In other words, there is very little choice between a good laying strain of Wyandottes and a good laying strain of Leghorns. However, in view of the fact that the Wyandotte excels as a winter layer and the Leghorn as a summer layer, it makes the value of the eggs laid by the Wyandotte considerably higher for the year.

To illustrate my point, I wish to quote the following table taken from page 232 of Bulletin 87, issued by the Storrs Agricultural Experiment Station, Storrs, Conn., describing the Fourth Annual Laying Contest:

Breed—	Eggs	Value of Eggs	Return Above Feed Cost
Wyandottes	1,650	$45.99	$26.19
White Leghorns	1,581	$41.21	$24.53
Rhode Island Reds	1,558	$42.00	$22.12
Plymouth Rocks	1,463	$38.76	$19.00
Miscellaneous	1,258	$32.33	$15.85

Beginning November 1, 1911, and concluding October 31, 1916, five laying contests were conducted on the grounds of the Missouri State Poultry Experiment Station at Mountain Grove. Within this five-year period, how did the performance of the Wyandottes compare with that of other breeds acknowledged to be high egg producers? The question is answered by Prof. C. T. Patterson, Director of the Station, in the following table:

White Wyandottes	163 eggs
Silver Wyandottes	162 "
S. C. White Leghorns	162 "
S. C. Reds	157 "
Black Minorcas	155 "

R. C. Reds .....153 "
Anconas .....151 "
Barred Rocks .....146 "
White Orpingtons .....135 "

The above figures are not high, but it must be remembered that they represent the average of all specimens of the different breeds entered in the five contests. Many pages more of statistics could be quoted, but as figures are usually dry reading, the above will suffice.

What are the proper lines along which to breed in order to retain this superiority? No matter how beautiful a variety may be, there is one infallible test by which it must justify its existence and that is the test of usefulness. Does it show reasonable profit over the cost of feed and care? As a profitable breed, the Wyandotte undoubtedly leads on account of its splendid laying qualities, and the question naturally arises, is there anything about the shape of the Wyandotte that is favorable to heavy egg production? There undoubtedly is. If you study the shape of the Standard Wyandotte, again you will notice that it must have breadth, depth and moderate length. These, taken together, mean capacity. In fact, this is the outstanding characteristic of a good Wyandotte and it behooves Wyandotte breeders, who have the welfare of the breed at heart, to insist that judges consider shape of paramount importance. In the best interests of the breed, let us demand that shape be strictly adhered to. Some years ago there was a fad for an excessively short bodied bird and this was especially noticeable in the White Wyandotte. This, no doubt, was detrimental, as it would tend to lower egg production and also lower fertility. This, however, like other fads, had its day and the present Standard for the Wyandotte is a safe and sane model to follow. (J. S. M.)

CHAPTER II.

WYANDOTTES IN LAYING CONTESTS.

THE egg laying contests which were started about the year 1910 have provided records which make a splendid basis for estimating the average performance of any breed or variety.

We refrain from the temptation to list the prizes won in these contests in view of the fact that space prohibits listing the prizes won by all varieties, which should be done where a comparative value is given, therefore, we give the performance of Wyandottes without comparison to other breeds and varieties, and consider it sufficient to say that they have won their proportionate share of prizes offered in each contest.

Relative to the requirements of the American Standard of Perfection, not enough records were submitted where the competing birds were scored to justify listing the results; enough were given, however, to indicate that a high scoring bird may be either a high or low producer and that a high producer may be either a high or low scoring bird, which indicates that high scores do not influence production nor does high production indicate low scores.

The records then indicate that the "Ideal" of high scores and high production may be combined in the same bird. The records from twenty-seven egg laying contests have been compiled which give a good idea of the performance of the Wyandottes.

The Wyandotte breed was represented by six varieties. In order of numbers of birds entered they were the White, Silver, Buff, Columbian, Golden and Partridge.

These contests have been conducted at various places throughout America, at different latitudes and altitudes and under different climatic and other conditions. They were under both state and private management and cover a period of several years. The birds were also raised in various parts of the country and under different conditions, some on farm range and others on small city lots, therefore we consider the av-

erages obtained to be a good indication as to what might be expected of the breed.

Credit is due the managements of the following contests who furnished the records from which the results were obtained: Storrs Contest, Storrs, Conn.; Vineland Contest, New Brunswick, N. J.; North American Contest, Philadelphia, Pa.; Missouri National Contest, Mt. Grove, Mo.; The All-N. W. Contest, Pullman, Wash.; Kentucky Contest, Lexington, Ky.; American Contest, Leavenworth, Kan.; Arkansas Contest, Fayetteville, Ark.

A pen of White Wyandottes which produced 1,226 eggs in one year, an average of over 245 eggs each, at the Sixth National Laying Contest, at Mountain Grove, Mo.

The contest year as a rule was from November 1st of one year until November 1st of the following year. The birds began the year as pullets but ended as hens, so the females may be referred to as either pullets or hens in the contest. The year covered the first laying year.

The records compiled from the twenty-seven contests are as follows:

2180 Wyandottes produced 332,325 eggs, or an average of 152.4 eggs each. Of the 2180 birds competing 417 or about 20 per cent produced 200 eggs or more in one year. The ten high-

est individuals produced 294, 289, 286, 281, 274, 274, 267, 267, 265, 265 eggs each. The ten highest pens, with five hens each, produced 1305, 1226, 1180, 1143, 1132, 1130, 1120, 1094, 1089, 1074 eggs per pen.

The following data was not given in each report but the averages were made from the ones reported. The average weight of each for the first or pullet year was 4¼ pounds. The eggs averaged 24.1 ounces per dozen. Each pullet consumed 72 pounds of feed during the year. The average broodiness was 3.75 times each. The mortality was 9 per cent during the year.

The performance of Wyandottes in the egg laying contests may be summed up and stated briefly as follows:

The average Wyandotte during her first year's production averaged 4¼ pounds in weight, she consumed 72 pounds of feed and produced 152.4 eggs which weighed 24.1 ounces per dozen, which is approximatey 23 pounds, or more than five times her weight in eggs. She went broody 3¾ times and nine out of every one hundred died during the year; one out of five passed the 200 egg mark. Plainly the Wyandotte is capable of reaching the 300 egg class. (C. T. P.)

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